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Edited by HENRY C. PEARSON—Offices, No. 35 West 21st Street, NEW YORK.

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MAY 1, 1907.

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WALL STREET AND BUSINESS.

THE exports of American manufactures, so long relatively insignificant, have of late grown to a volume which places the United States in the front rank among exporting nations. A recent official report from Washington, analyzing these exports, shows a steady expansion of shipments of a great variety of goods, to all the principal markets, to a degree that cannot be regarded as due to accidental or sporadic influences. The foreign trade of the country evidently is built upon a sound basis and built to last. This is encouraging, if for no other reason, because the productive classes here, no longer restricted to a home market, are thus better safeguarded against future periods of idleness due to any local business depression.

Another set of figures which testify to the great prosperity of the nation is contained in the government's report on railway incomes—altogether the most stupendous figures afforded by any business interest in the country. The constant increase, year by year, in railway earnings is a striking measure of industrial and commercial growth. The general study of these figures, together

with the export statistics already referred to, would greatly lessen the number of pessimists.

The statistics with which the average newspaper reader probably is more familiar, however, are the stock exchange quotations. For some time past quotations for American securities, if taken alone, would have indicated a depressed condition of business and a general decline of prosperity. While factories were busy and every class of labor employed and consumption of goods active, railway and other corporation shares were lately selling at a heavy fall in prices. The exact cause of this latest perturbation "on the Street" we shall leave to the financial experts to explain. The stock exchange reports do give the exact *selling price* of securities, and in the long run do register the country's prosperity as no other agency does, but they do not necessarily give the *true values* at any given date of the properties or business represented. Prices may go too high some times, in an era of prosperity, and in endeavoring to find their level may fall too low. Or when people feel like buying, shares of a corporation may rise, and *vice versa*, regardless of the condition of the company.

It happens now that the people are concerned with the question of corporation control, and while this question is being settled, the railway companies may naturally halt the work of expansion that is always going on, and investors may be cautious about buying their shares, causing prices to drop. And the business man who owns such shares will count himself poorer for the time and perhaps postpone certain plans, causing a temporary check to trade. Such a condition we referred to briefly last month as a probable cause of the lessened pressure to buy crude rubber, and the consequent fall in prices. But Wall street apparently has recovered from its scare, as always happens, and the effect on business is likely to be soon forgotten.

THE SELECTION OF COTTON FIBERS.

THE last Sea Island cotton crop, whatever may have been the cause, was less than half as large as the average for several years past, and the planters of this grade are now organized for the purpose of restricting production and maintaining prices. The importation into the United States of long staple cotton (mostly Egyptian) increased from 17,000 bales in 1890 to 133,000 bales last year. But the production of cotton in Egypt is not commensurate with the demand, and cannot be depended upon to supply the needs of the trade in long staple fibers.

It is interesting to note in *The Cotton Journal* a letter from a planter, calling attention to varieties of American cotton with staple intermediate between the ordinary upland and the Sea Island. Growers generally, he says, have not been aware of the extra value of some of their product, though the buyers have appreciated it, and pocketed a handsome profit through charging the spin-

ners proportionately more for the long staple. But this writer mentions one planter who for years has been growing 1¼-inch cotton, which this year he sold at 10 cents a pound above the price for ordinary 1-inch upland cotton. Now if the situation is really as pointed out in *The Cotton Journal*, the rubber trade, for example, might become more independent of the growers of Sea Island cotton through the substitution for it of other American grades. And if a few growers of upland, here and there, can grow extra long staple cotton and profit by it, why may not a great number do the same?

The United States *Daily Consular Reports* recently contained an article on the advantage which British manufacturers derive from the mixing of cottons. Whereas the American manufacturer, as a rule, confines his selection to home grown material, the Lancashire spinner finds in the Liverpool market not only American cotton, but the products of India, Egypt, Brazil, Peru, and the West Indies, varying in length of staple and all the other salient qualities. The consular report indicates that, with such a variety to select from, the British spinners have become particularly expert in testing cotton and learning its real worth and adaptation to any particular purpose. Herein lies one reason why British manufacturers have been able to sell certain cotton fabrics for less money than any of their competitors.

The situation with regard to cotton, so far as the American rubber trade is concerned, suggests the period when only Pará rubber was used, and other grades, as they gradually became available, were regarded with disfavor or distrust. Now these other grades are used in as large volume as Pará rubber, each being carefully chosen for a particular reason. And not the least important advance which has been made in the rubber industry has been in the art of mixing various rubbers in the same compound, each giving some desired quality to the finished product. This, we take it, is what the Lancashire mills are doing with cotton, and what American spinners doubtless are learning to do. There are situations, of course, where the rubber trade requires cotton fabrics for which Sea Island cotton is indispensable. But this has become an expensive material, such as a manufacturer is not justified in using when a lower priced grade might meet the requirements, either alone or in combination with Sea Island.

THE BRITISH TIRE MARKET.

A LEADING rubber tire manufacturer in England writes in a contemporary complaining of the situation wherein his own market is invaded freely from the continent, while he is debarred from selling goods abroad by prohibitive customs charges. He refers to a particular company as "collecting in England thousands of pounds weekly [for tires] and sending it to Germany to pay the wages of thousands of German hands and the rates and taxes of Germany, whereas here we only get the advan-

tages of a few pounds a week spent by their small staff of selling clerks." This same Germany company, we are told, advertise "in a most tantalizing way" the number of hands they employ abroad to supply English wants which, the writer thinks, the English could supply themselves.

The manufacturer we quote drops here into politics, and hints that Britishers should no longer be "content with doing what our grandfathers told us we should do, while everyone admits that things are different now," but meet "this new foreign dumping scheme" with retaliation. If Britishers are not allowed to sell tires in Germany, keep the Germans out of Britain, even to the point of forgetting the teachings of Cobden.

But politics as a rule is none of our affair, and particularly foreign politics, though we may hazard a doubt that England will soon put a protective duty upon rubber tires. Meanwhile, what have tariffs elsewhere to do with the sale of tires in England? Home and foreign makers meet there on common ground, except that the foreigner has to pay more to get his wares to market. Then, if the home factory can supply goods of a given quality at prices as low as the imported article, what reason is there to fear outside competition?

GOOD WORK OF THE CONSULS.

THE American consular service, we believe, will not suffer by comparison with that of any other nation. It includes many consulates of long standing, and the force includes not a few officials of many years' experience. As an example of the capable men the service has embraced, even at minor ports, mention may be made of a certain consul sent to Pará, who wrote one of the first, if not the first, consular reports in any country relating to rubber, who established a business of importing rubber to the United States and instigated the establishment of some important rubber factories here; and who founded in Great Britain, first under his own name and later as a public company, one of the leading rubber works in that country.

The reports from the consuls as now published at Washington are not excelled in any other country in point of practical value, but are being taken as a model, both in character and in the method of bringing them out, by other great powers. Our motive in writing this is not boastful; it is rather an attempt to increase the usefulness of these reports by helping to call the attention of business men to them. Without doubt the large increase in exports of American manufactures in recent years has been due in an important degree to the definite information regarding trade conditions abroad contained in the consular reports. The circulation of such intelligence has been widespread, since practically every newspaper nowadays contains news matter directly traceable to the work of the consuls.

The efficiency of this service now promises to be dis-

tinctly enhanced under a new régime just beginning, under which appointments and promotions are to be based, to a greater extent than before, upon the merit system. All the consuls in the past have not been model officials, and probably all future ones will not be, but the practice of insisting upon definite standards of qualification, instead of paying political debts with consular appointments, marks an advance upon which the business interests of the country are to be congratulated.

PROSPERITY OF CEYLON.

CEYLON appears, from all accounts, to be in an exceptionally prosperous condition. The reports of the large tea planting companies, most of which have held their yearly meetings lately, indicate a favorable status of their affairs. The estates are in good shape, the yield has been satisfactory, and higher prices for tea are the rule. Not only this, but the cocoanut interest is assuming larger proportions, and numerous other so called "minor products" are becoming more important as staples of export. The planters of Ceylon, in fact, regard their colony as making a record second to no other British dependency, and they have no such fears for the future as existed at the time when their hopes in respect of coffee began to be dissipated.

Not least of the encouraging features of the situation is the success, to date, of rubber planting in Ceylon. There may have been a time when some planters turned to rubber as a sort of last resort when other planting prospects were none too bright, but that feeling does not now exist. Rubber has come to form one more profitable crop, and thus removes the planters further from the position of having "all their eggs in one basket."

The more prosperous Ceylon as a whole, the better for the rubber interest there, and the whole world is concerned about new sources of rubber, wherever situated. What has been said here, by the way, about the one colony, is becoming true more and more of planting in the Malay States, and doubtless can be reported later of the Dutch Indies as well as of the British possessions.

THE REVIVAL OF INTEREST IN COTTON GROWING in many countries at this time occurs under more favorable circumstances than when the crop was first planted in some of them. Better shipping facilities than formerly enable the product to be marketed more favorably; better facilities and methods exist for preparing cotton for market; the seed now is a source of profit; and there is in prospect a permanently higher price than in former years. It may be, therefore, that success will now be attained where earlier results were disappointing.

WHAT IS TO BECOME OF THE AMERICAN INDIAN under the paternal care of the government, which supplies him, free of cost, with so many articles not suited to his character as lord of the forest? For years Uncle Sam has been buying rubber boots and shoes for the red men and for their squaws and papposes, and this year tenders were invited for supplying Indians with free garden hose and rubber belting and packing. The "braves"

of other days would have been ashamed of such things, and really it is hard to think of a true Indian handling a lawn sprinkler instead of a tomahawk.

COTTON GROWING IN AFRICA.

THE total cotton production this year, directly or indirectly under the auspices of the British Cotton Growing Association, it is estimated, will reach 40,000 bales, of a value of say £500,000 [= \$2,433,250]. Of this 15,000 bales is estimated for the British colonies in West Africa. This is the result of only four years' work, and the association feels much encouraged. The association's shares have been subscribed for to the extent of £254,494 [= \$1,238,495], or more than half of the total of £500,000.

The Rhodesian Cotton Co., formed lately in South Africa with £100,000 capital, have planted already several hundred acres at New Fontesville. They use steam plows.

The German colonial administration is in earnest in stimulating cotton planting in Africa. This is one of the objects of the Kolonial-Wirtschaftlichen Komitees, a semi-official body. The latter have opened at three stations in Togo, a German African colony, a *Baumwollschule* (cotton school), with a three years' course, for native boys. At a recent exhibition at Palime, in Togo, a cotton gin was shown at work, treating cotton grown under the auspices of the school, after which it was baled by the most approved methods for export. But German East Africa is the Germany colony which thus far has led in cotton production. Only statistics of values can now be given, showing the exports of German colonial cotton. The figures indicate marks:

	1902.	1903.	1904.	1905.
Total from German colonies...	15,212	84,300	200,635	306,643
From German East Africa.....	212	7,313	124,216	191,145

But how small these figures appear in comparison with the imports of raw cotton into Germany in 1905, amounting in value to 470,000,000 marks!

The French Colonial Cotton Association, formed three years ago by French cotton manufacturers to promote cotton growing, does not, like the British association, exist for purposes of profit. It has supplied free seed to the local inhabitants of the various colonies of France, on the promise of buying all the cotton grown from it. The association reports promising progress, though only a small amount of cotton has yet been produced. A Bordeaux journal points out the suitability of Algeria for cotton growing, as shown by the fact that, under the stimulus of high prices for cotton during the American civil war, considerable cotton was exported from that colony. The figure for 1866 was 1,022,046 kilograms [= 4,497 bales of 500 pounds]. The production then dropped gradually to almost nothing. *Bradstreet's* gives the cotton exports of the French colonies (except Indo-China) at 37,802 pounds in 1904 and 198,861 pounds in 1905. French Indo-China exported 9,570,855 pounds in 1904 and 13,547,762 pounds in 1905, the latter equaling 27,095½ bales of 500 pounds.

INDIA'S BIG COTTON CROP.

THE acreage planted to cotton in India in the year ended March 31, 1907, was computed at 22,344,000, a large increase over any former year. The product was estimated at 4,908,000 bales (of 400 pounds), an increase over the preceding year of 43.3 per cent. The yields of previous years were stated by the United States Consul at Bombay to have been 3,168,000 bales in 1903-04; 3,818,000 bales in 1904-05; 3,240,000 bales in 1905-06. Indian cottons vary greatly in spinning value, the various grades being quoted recently in London at an equivalent of 7 to 11 cents, with ordinary American selling at 10½ to 13½ cents per pound. Considerable cotton from Egyptian seed is now grown in Sind, India.

RUBBER PLANTING INTERESTS.

RUBBER IN SUMATRA.

THE next "boom" in rubber planting is expected to take place in Sumatra, where, it is stated, some 150,000 acres of land have already been "allocated" for this purpose. The soil and climate have already been demonstrated to be suited for growing *Hevea*, and the large native population, under Dutch rule, has been found most satisfactory for the purposes of large planting estates.

There has been formed in Holland a company—Vereenigde Hevea Plantagen der Bila Landen—with 3,000,000 florins [=£1,206,000] capital, to acquire a concession of 4,250 hectares [=10,502] acres in the Sultanate of Bila, in East Sumatra, and plant it with rubber. The president is Ernest Bunge, of an Antwerp rubber firm, and Emile Grisar, the Antwerp rubber broker, is a director.

The important Congo trading company, Société Anonyme Belge pour le Commerce du Haut Congo, have under consideration an investment of 100,000 florins [=£40,200] in the Dutch company Brussel Sumatra Caoutchouc Maatschappij. *The Times of Ceylon* hears that King Leopold, under various interests, holds in Sumatra already about 80,000 acres of land suited for rubber.

The Sumatra Pará Rubber Plantations, Limited, was registered in London March 18 with £100,000 [=£486,650] capital, to acquire the Pangkattan estate, in Bila, Sumatra, already producing coffee and rubber. Purchase price, £60,000. Registered office: 30, Mincing lane, E. C., London.

It will be remembered that rubber culture in Ceylon and the Malay States was first introduced in connection with large tea and cocoa estates, owned by British companies. A similar system of company owned estates prevails in Sumatra, particularly in respect of tobacco. The shares of scores of such estates are traded in regularly on the Amsterdam *boerse*, showing that Dutch investors regard such enterprises with favor. It is now proposed to plant rubber and tobacco together. At the recent Ceylon Rubber Exhibition Mr. M. Kelway Bamber delivered an address recommending tobacco as a "catch crop" for rubber.

"BRITISH GROWN RUBBER."

UNDER this heading the important London commission house of Gow, Wilson & Stauton have issued a circular bearing upon the notable development in rubber culture that is taking place in Ceylon and the Federated Malay States. While the production in those colonies is increasing rapidly, they say "it does not appear likely that the production from South America, Africa, and other parts will increase to any great extent in the near future." In view of the continued increase in consumption, not only is overproduction not imminent, but rubber planting "should for a long time continue a profitable commercial undertaking." In presenting statistics to support their argument, Messrs. Gow, Wilson & Stauton do *THE INDIA RUBBER WORLD* the honor to compile their figures from the columns of this Journal, giving full credit for the same.

AN IMPROVED TAPPING TOOL.

THE inventor of the "V. D. K." rubber tapping knife—Gustave Van den Kerckhove, of Brussels—has modified it by the addition of another hollow blade, increasing the number to four. The purpose is to render the knife adaptable to every species of rubber plant now yielding rubber, and this Mr. Van den Kerckhove thinks he has attained. Most of the other tapping knives now in use have been designed each for a particular variety of rubber tree or vine, and are not adaptable for use on any other. Besides, the inventor in this case offers a tool with which a complete incision may be made, whereas in the case of some other devices, two or more tools are required. The "V. D. K." device was illustrated in *THE INDIA RUBBER WORLD* December 1, 1906 (page 89).

RUBBER PLANTING RESULTS.

YATADERIA TEA Co., of Ceylon, Limited.—Rubber crop for 1906, 8,025 pounds, from 5,947 trees, of which part were very lightly tapped; average, 1.35 pounds per tree. This year, with 2,100 additional tappable trees, 11,000 pounds are expected. Yield in 1904, 583 pounds; in 1905, 2,855 pounds. Present number of trees, 132,135.

Rayigam Co., Limited, in Ceylon, have 482 acres in rubber and 467 acres in tea. Tapping began last year, yielding 3,107 pounds of rubber. This year it is expected to tap 5,500 trees, with an estimated yield of 5,000 pounds.

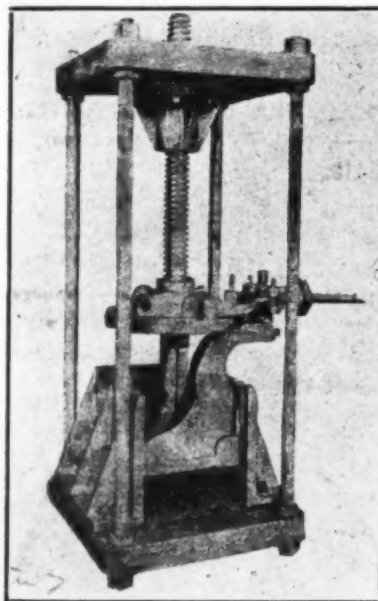
On the Seminyah estate of the Asiatic Rubber and Produce Co. some ten-year-old trees (*Hevea*), it is reported, have been yielding 4 pounds of rubber each.

PLANTATION "RUBIO."

THE report of Mr. Arthur St. J. Whiting, the inspector chosen by the shareholders of the Tehuantepec Rubber Culture Co. (New York), to visit their plantation in Mexico, contains details regarding the 2,500,000 *Castilloa* trees on the estate, showing a continued satisfactory increase in size. The plan of close planting has been followed, with the idea of thinning out at the proper time, which time Mr. Whiting does not think has arrived in the case of the oldest planting (1902). It is expected that considerable rubber will be obtained from the trees which are to be removed. Manager A. B. Luther is conducting systematic tapping experiments on some older planted trees rented on a neighboring estate. A sample of the rubber obtained was reported on by a rubber importing house as being "approximate in value to Ceylon and Straits Settlements plantation sheet."

A RUBBER BLOCK PRESS.

THE illustration relates to a press for preparing crude rubber for market in the "block" form, which attracted so much attention at the Ceylon Rubber Exhibition last year, and which form has brought such good prices at the London auc-



RUBBER BLOCK PRESS.

tions as to appeal greatly to the interest of the planters in the Far East. It is stated that with the use of this press smooth, clean blocks of rubber—already coagulated, of course—can be made and finished in one hour, two coolies being able to apply the exact pressure required in from 5 to 10 minutes. This press is adapted equally for dry or wet blocks, and, as now made, for turning out blocks 12 inches square and of any thickness up to 12 inches or more. This press has been supplied already to a number of estates in the Federated Malay States, and also to the owners of a large rubber plantation in Mexico. A patent has been applied for on this press, and the sole makers are Brown & Davidson, Limited, Colombo, Ceylon.

India-Rubber, on the Island of Cuba.

By the Editor of "The India Rubber World."

THE day after the 13th we sailed from Pier 13, East river. New York, getting away at 12:13, *en route* for Cuba. Gedney channel was full of ice, but the water was smooth and the day fair. Aboard the boat were a number of rubber planters on the way to Mexico, and my roommate was a prominent rubber manufacturer, also bound for Cuba. The weather was fine even off Hatteras, and everybody aboard had ample opportunity to be sociable, and they all were. I was amused to discover how fearful the Mexican planters were of the possibility that guayule rubber, which they seemed to dislike very much, would put a check on the planting of *Castilloa*. I do not know whether I was able to convince them that such was not the case, but I did my best.

I should have prefaced this story, perhaps, with a statement of why I was going to Cuba. I had always believed that rubber could be grown there, though whether profitably or not I did not know. But the knowledge that 451 pounds of cultivated rubber had been shipped from that island to New York stimulated my interest afresh, and the time seemed to be ripe for me to go—that is, one revolution had just been quelled and the next one was not quite due, so I felt that it might be well to fill in the hiatus myself.

After passing Hatteras we soon sighted Florida, coasted along by Palm Beach, and in due time, early one bright morning, "picked up" Morro Castle. Later we entered the narrow mouth of Havana harbor, and passing the wreck of the *Maine*, anchored in such shallow water that the mud from the harbor bottom rose in great volumes all about the boat. Owing to the "Lighter Trust" we were forced to go ashore in a small transfer boat, instead of tying up at a pier and being discharged like up-to-date Christians. The time will come no doubt when this trust will be "busted," and all such discomfort and cost be avoided. This belief, however, did not give us much comfort as we sat in the

broiling sun three-quarters of an hour before our little boat started for shore.

One of my best friends in New York advised me by all means to go to the Hotel L—. I therefore scorned all suggestions on the part of hotel runners that there was anything else worth considering, which was where I was wrong, and the Colonel and I took up our abode there. The city, to be sure, was crowded, and it was difficult to get accommodations. We got two dark rooms with the usual mosquito net covered beds, and with running water in each room. It was not the sort of running water, however, that is well under control, for when it was turned out of the hand-filled tank it leaked out upon the floor and made wading boots almost a necessity. The man chambermaid came in with a cigar in his mouth every now and then and solemnly mopped it up. He also gave me clean sheets after I threatened in pantomime to make a bonfire of the pair that my predecessors had left, which were far from spotless. However, these things do not trouble one in the tropics if you know how to guard against them, and if you have somebody along who is a tenderfoot who had to pay \$1.20, for example, for having a pair of trousers pressed, it is really interesting. I might say that after that one experience the Colonel allowed his knees to bag as much as they pleased, not because he could not spare the money, but because he could not bear to be robbed.

The first real glimpse of Cuban life that I had was in going around the city that afternoon and evening, and it certainly is beautiful for location, and marvelously interesting. That Havana will one day be the Paris of America is beyond question, and even to-day, with its beautiful park in the city's center, its *prado*, and its gay crowds during carnival time, it has a decided suggestion of the French capital. One delightful thing about the city is the cheap cab fares—that is, if you know how to get them—20 cents taking one to almost any part of the city, the regulation



THE EDITOR AND HIS COMPANION ON A CUBAN FINCA.



"FICUS ELASTICA," BOTANIC GARDEN, SANTIAGO.

fare being \$1 an hour. Of course, the new comer often pays very much more than that, but he does not need to.

I had hardly settled down before a friend put me up at the American Club, which is a thrifty organization, exceedingly well housed, where one meets the best men of the city. As I was not there to see sights unless they were rubber sights, I was up at 6 o'clock the second morning and, after coffee at Delmonico prices, took a cab for Christiana station and bought a ticket for the experiment station at Santiago de las Vegas, which goes under the name of the "Estacion Central Agronomica de Cuba." On the train I was approached by a meek faced, long haired chap who inquired if I was going to the experiment station, and on my allowing that I was, he said he had hired a guide who seemed to be a good fellow and that we could divide expenses and see the sights together. He was, so he said, connected with the Upton Sinclair Coöperative Colony at Englewood, New Jersey, and evidently believed in dividing his expenses with others. When I saw his guide, however, I refused to "co-op," and he left me to my fate. At Santiago I got a carriage, and after an introduction to Professor Crawley was turned over to Mr. C. F. Baker, the botanist in charge. I found him an exceedingly enthusiastic young man who had traveled far in tropical regions, and who, by the way, is a brother of Ray Stannard Baker, the author. After lunch, where I met the exceedingly pleasant little colony who live at the station, I went to view the rubber.

Almost the first thing that we saw were *Castilloas*, five years old, that had flourished in spite of all sorts of natural and arti-



"FICUS GLOMERATA" THREE YEARS OLD.
[*Achras sapota* (Chicle tree) in the foreground.]

ficial disadvantages. Among other natural disadvantages, they had been planted where the soil did not appear to be at all rich, and as for the artificial, the seedlings were started in pots and then, pots and all, were put into the ground, thus checking the root growth, so that when a cyclone came they blew over. This was before Mr. Baker's time; that is, the pot planting was. When they blew over, however, he promptly set them up again and they grew right along as if nothing had happened. Among other rubber producers that were growing at the station were *Cryptostegias*, from Madagascar, which had only just been planted. The shoots were full of milk and the plants bear every promise of growing luxuriantly. There was also some *Ficus elastica* that appeared to be doing well.

The Ceará trees growing there, however, were not very thrifty specimens. Indeed, Mr. Baker had a feeling that it would not be a good proposition. The reason adduced was that all over Cuba the "Cassava" (*Manihot utilisima*) was very widely cultivated and bred an insect that attacked the terminal buds, going so far inside that it was impossible to reach it by spraying. This insect, when the *Manihot Glaziovii* appeared, promptly forsook its first love and destroyed the rubber producer.

The *Ficus elastica* and the *Castilloa*, however, Mr. Baker was sure could be cultivated profitably. Indeed, he strongly advised the use of *Castilloa* as a shade for tobacco, instead of the worthless trees used at the present time. I forgot to say that the *Castilloas* then had just gone through four months' drought and were still apparently in good trim and full of latex.

After I had looked the station over, Mr. Baker was good enough to accompany me in the only conveyance that was then at the station, an open wagon drawn by a somewhat eccentric mule, and we drove out over the fine *calzadas* to the outskirts of the town to look at some *Castilloas* of earlier plantings and also to examine wild *Ficus* trees, of which there are four kinds native to the island. These are the *Ficus membranacea*, the *Ficus populoides*, the *Ficus subscrida*, and the *Ficus Combrii*. The *Ficus membranacea* was the only one that we saw that day. The *Castilloas* looked fairly well but were planted simply as fringe along the borders of the estate and had been mutilated by passers-by until the bark surface was badly scarred. All seemed to be milk producers, however, and showed what the tree would do. The *Ficus* grew by the roadside, having seeded themselves, and were abundant milk producers, although so far as I can learn only one yields rubber of a commercial quality—



"FICUS" SP. AT SANTIAGO BOTANIC GARDEN.



"CASTILLOA ELASTICA" AT EL ALJIBES.

[Circumference 12 to 14 feet; height about 80 feet. The other trees shown are small seedlings.]

but more about that later. Mr. Baker had taken so much interest in the question of rubber culture, and with the limited money and time that the department could afford him had gone so far into it, that I spent my time chiefly in getting a general idea, not only of what exotic rubber plants would do there, but what possibility there was of native producers hitherto unknown to the rubber trade. For example, he showed me a plant, or rather a large shrub, which is known as the "caimitillo," and is botanically the *Chrysophyllum olivifera*. This fruit about September, bearing a sort of plum that, with a little crushing of the pulpy interior, becomes a gum somewhat like chicle. In parts of the island hundreds of tons of this fruit go to waste every year. There are also thousands of acres of land covered with shrubs and vines near the coast, some of which no doubt would be numbered among the lesser rubber producers. Of course, as there has been no forestry department up to the pres-



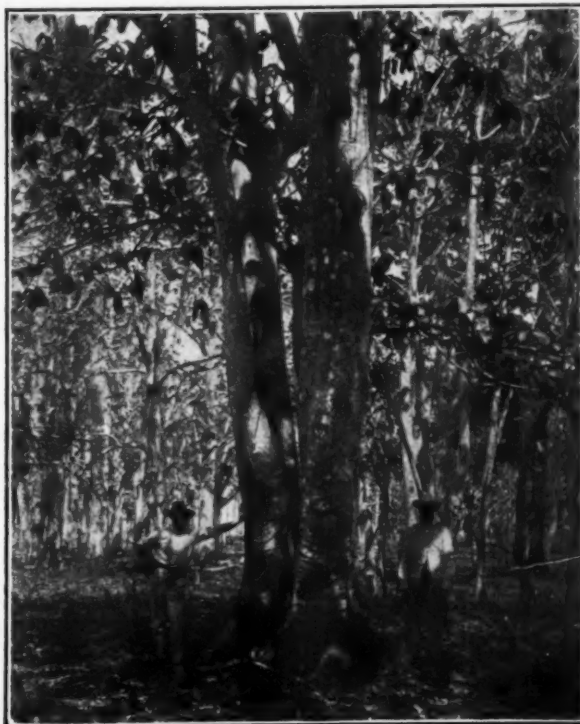
"CASTILLOA ELASTICA" AT EL ALJIBES.

[Chance seedlings from the large trees shown in the other pictures.]

ent time there is a lack of exact knowledge on the subject.

The revolution that the country had just gone through had set work at the experiment station back considerably. Indeed, during its progress none of the Americans knew whether they would be able to remain there at all. A large body of insurgents camped close to the station, but did not disturb it very much. They did help themselves to a few horses and pigs, and entered the main office, cut the telephone away with a machete, took it outside and smashed it, but they did not trouble the thousands of dollars worth of valuable instruments, nor did they attempt in any way to interfere with those in charge. To be sure, a detachment of men headed by an officer rode up to Professor Cook's house one day and demanded his raincoat. The owner, however, declared that the coat was useless to them, as it was not a raincoat but a snowcoat, and they went away satisfied.

I spent so much time at the experiment station that I missed my train back to Havana. I then arranged to drive in through the country in a one horse *voiture*, and had the time of my



"CASTILLOA ELASTICA" AT EL ALJIBES.

[Circumference 14 feet. Planted probably in 1854. Surrounded by smaller *Castilloas*.]

life. My driver was an alert little Cuban and knew the name of every tree and every ranch, who treated me to green *guavas* and other edibles, and his faculty of making himself understood when his Spanish was too much for me, was really remarkable. The roads were fine, and the estates, nearly one-half of which were owned by Americans, were very extensive, and my guide's fund of good nature seemed inexhaustible until an automobile passed us. Then a look of black wrath spread over his features and he said "*Mucho malo! Mucho malo!*"

I have always found that if at the beginning I went to the fountain head of information on any particular topic, I was able to do a thousand fold more work and also have some time for sightseeing. I therefore got my friend Kummel, of whom more anon, to show me the way to the Hacienda building, to the office of the "Secretaria de Agricultura, Industria y Comercio." There



GROUP OF "MANIHOT GLAZIOVII" TREES.

[Property of Dr. F. I. de Vildosola, Secretary of Agriculture.]

I was introduced to Secretary Dr. Francisco I. de Vildosola. I found him to be one of the very best types of Spanish gentleman. He did not speak much English, but understood it, and we were able to get together without the slightest difficulty. Dr. Vildosola is a very large land holder and is in office purely for patriotic reasons. When he understood my errand to Cuba he at once placed at my disposal all the department records, and presented me with books and pamphlets and a fine sectional map of the island. He was well up on india-rubber and talked interestingly on plantings of *Hevea*, *Castilloa*, *Manihot*, etc. He also spoke of the native *Ficus* trees and said that the one called

by the natives "jaguey hembra," and which he identified as *Ficus radula*, is the only one that produced commercial india-rubber—that is, rubber had been secured from the latex that brought 60 cents per pound when Pará rubber was somewhere about the dollar mark. It is also claimed that the wood of the tree is useful, while the roots yield a fiber used by surveyors in making chains or lines. These trees have never been cultivated, but either grow wild or are set out for ornament and are said to be abundant in the Isle of Pines. At a later date I expect to have both latex and figures as to yield.

Incidentally, the Doctor secured for me some fine photographs of *Castilloas* on an estate at El Aljibes, near Tapaste, in Havana province. These trees are from old plantings of a dozen or more trees, but a very thrifty orchard has sprung up around them of trees that seeded themselves. They have not only found a thoroughly congenial soil, but climate, drainage, and everything is right for them. The soil there, by the way, is a dark red loam, very deep and well drained, and the location in the high valley protects them from winds on all sides. Underneath the old trees—in fact, everywhere within reach, where there is shade and moisture—there are thousands of little seedlings growing thriftily, a native nursery that could easily be developed into a large plantation. The largest of the trees on this plantation are 14 feet in circumference, 3 feet from the ground, and are from 75 to 80 feet high. As far as the records go the original trees were planted back in 1830 from seeds distributed by the botanical gardens of Havana to plantations like El Aljibes—for instance, at Salud, Bijucal, and San Jose de las Vegas.

Later the secretary was able to secure for me photographs of *Manihot* planted in 1903 at the Labrador sugar plantation, which looked fairly well, considering they were taken at the time when the trees shed their leaves. These trees did not seem to have suffered from the insect that attacks the terminal buds about which Mr. Baker spoke. In answer to many questions, the opinion of the secretary was that both the *Castilloa* and the *Manihot* grew well in Cuba, but he did not know of the *Hevea* ever having been experimented with enough to prove its fitness or unfitness. I saw the secretary a number of times during my stay in Cuba and he did everything possible to make the securing of information easy, and since my return has been good enough to send me additional information.



"FICUS INTIDA(?)" AT ENTRANCE TO FINCA SAN MIGUEL.

Taken as a whole, the rubber tree that seems to appeal to the Cuban planter more than any other is the *Castilloa*. Probably the most enthusiastic man in all Cuba regarding this tree is Frederico M. Castro, who lives in Havana, and who during the World's Fair at St. Louis had a creditable exhibit of rubber

gathered from *Castilloa* trees then growing in Cuba. He advises their being interplanted with bananas, and also as a shade for both coffee and cacao. He also suggests that in tapping the tree, *yaguas* or strips from the leaf of the royal palm about 8 inches wide be cut, folded lengthwise to form a canal, and then tied around the tree under the incision, the bark canal carrying the latex down into the pail used for collecting. According to his experiments, if the tapping is done at the full of the moon the tree gives more latex and the intervals between the tappings should be from 20 to 30 days, which means that the larger trees can be tapped from four to six times during the dry



EPIPHYTIC GROWTH OF "FICUS" ON A PALM.

season. No tapping should be done during the rainy season, which lasts about six months. He advises also morning tappings, as do the planters everywhere, the straining of the latex through a No. 30 sieve, and air coagulation without the addition of heat, in shallow pans in the shade.

There are said to be a number of possible rubber producers in the province of Pinar del Rio, called by the natives "goma," "gomero," and "palo babo." Undoubtedly these will all be identified within a year or two, and if of commercial value, promptly utilized. There are many places where rubber is growing, such as Sta Rita plantation, at Baro; Consolation dei Sur, in Petro Paso Seco, and a score of others. This is all *Castilloa* and sometimes planted in good soil and other times in rocky ground, but always growing in a thrifty manner.

The unfortunate part of the Cuban rubber cultivation proposition is that to-day there is only one producing plantation—away down at the eastern end of the island—and there the chief attention is paid to coffee, cacao, and other crops, and no definite records of rubber are obtainable. This plantation is known as

Olimpo and is owned by Señor Arturo Mourthe. It is situated some 40 miles from the city of Santiago and in a section where the land is exceedingly rich and well adapted for *Castilloa* cultivation.

I spent a long time trying to get in touch with the Central

Caucho Co. of Cuba, who in 1903 invaded the island with more than a half million *Hevea* seeds and a glowing prospectus. They were to at once plant a large tract near Trinidad, Santa Clara province, in south central Cuba. It may be all planted and the trees producing, but I could find no one who



"CHRYSOPHYLLUM CAIMITO."

knew about it. I think I mentioned Edward A. Kummel, who introduced me to the secretary of agriculture. He was formerly manager of the Batavia Co. in Mexico and was so much a believer in the future of Cuba that he started the Ocean Beach Fruit Lands Co., at Guadana bay, in the province of Pinar del Rio. Here is already a flourishing American community, the colonists planting chiefly oranges, grape fruits, etc. Mr. Kummel, always a believer in rubber, got 2,000 healthy *Castilloa* plants started, when the cyclone that everybody in Cuba knows about came along and raised the river so high that all but a few dozen of his plants were swept away. Not at all discouraged, however, he is starting over again, and will undoubtedly in time have some excellent rubber. My friend Kummel also called my attention to the planting of Ceara rubber 35 miles outside of Havana, at Caimito, where there is a small American colony, but the cyclone is said to have wiped this out. By the way, I do not want to give the impression that Cuba has many cyclones, for she does not—not half as many as the United States has of panics, and there is no danger of their seriously interfering with the planting of rubber of any sort.

Of course the most pertinent questions to the prospective planter are those of acquiring land and the supply of labor. As far as I can see there is no trouble on either score. The government at the present time, as I understand it, is not selling



"CRYPTOSTEGIA" SPECIES.

[Botanical Garden at Santiago de las Vegas, Cuba.]

The Late Arthur Winship Clapp.

PROBABLY no man was more widely known to the American rubber trade than Mr. Arthur W. Clapp, late treasurer of The E. H. Clapp Rubber Co. The news of his death, which occurred April 6, at the Hotel Lenox, Boston, came as a great shock to even those who were closest to him. He was ill only a short time, although for some two years past he has been slightly ailing. At the same time, with his magnificent physique and healthy appearance, it did not seem possible that he could so soon fall a victim to disease. Mr. Clapp was only 48 years old at the time of his death, and had been identified with the rubber trade since he was 17.

After his graduation from the public schools in Boston, Mr. Clapp went to work for his brother, the late Eugene H. Clapp, at the rubber reclaiming works at Hanover, Massachusetts. Later he took over the sale of the product and traveled all over the United States, wherever rubber factories were located, and became not only well known in the trade, but much respected. At the time of his brother's death, in 1892, he took charge of the business, not only of rubber reclaiming, but the very large interests in pulp mills in Maine which had been created by his brother's energy. He became treasurer of The E. H. Clapp Rubber Co., and also of the Penobscot Chemical Fibre Co. At the time of his decease he was active in both of these large corporations.

He was also president of the Rubber Manufacturers' Mutual Insurance Co. At the time of the formation of the New England Rubber Club he was one of its enthusiastic founders, and at one time served on the board of directors. For relaxation, Mr. Clapp was a great lover of the ocean, and his yacht *Harriet*, which he kept in commission for a number of years, was one of the finest that went out of Boston harbor. He was treasurer of Massachusetts Lodge F. and A. M., one of the oldest lodges in the United States; and a member of Roxbury Council, Mt. Vernon Chapter (at Roxbury), and Joseph Warren Commandery (at Roxbury). He was also a member of many clubs, among them the Algonquin Club, and was a member of the Ancient and Honorable Artillery Company of Boston. The funeral services took place at the house of his nephew, Eugene H. Clapp, No. 490 Beacon street, Boston, on the afternoon of Tuesday, April 9, and were largely attended.

Masonic services were conducted by the Massachusetts Lodge, the Rev. Edward A. Chase, chaplain. The Rev. Parris T. Farwell, of the Wellesley Hills Congregational Church, assisted, as did the Adelphi Quartette. The honorary pallbearers were James Bennett Forsyth, C. H. Delano, C. E. Brush, Benjamin Taft, William A. Paine and C. D. Annable. The rubber trade of New England and New York was well represented. Among the floral tributes, which were particularly beautiful and numerous, were those from the New England Rubber Club, the Rubber Manufacturers' Mutual Insurance Co., Massachusetts Lodge, the Penobscot Chemical Fibre Co., the directors of the Penobscot Company, the Rubber Reclaimers' Club, and individual members of the Algonquin Club, and many others who were personal or business friends. The interment was in the family lot at Mt. Auburn Cemetery.

TRIBUTE OF THE NEW ENGLAND RUBBER CLUB.

WHEREAS, Our friend and fellow member, ARTHUR W. CLAPP, has been stricken with death, we, the members of the New England Rubber Club, as a last tribute to his worth, are moved to record the following:

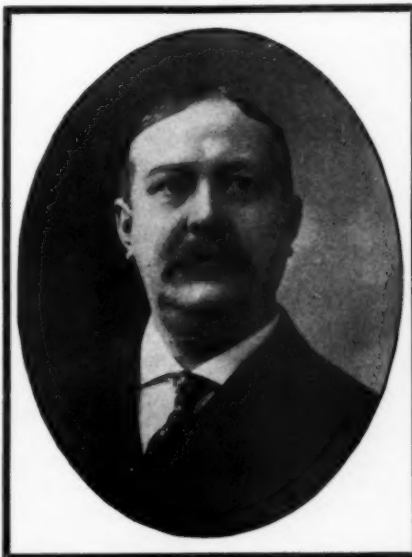
Resolved, That this Association, together with the whole of the great industry in which he was for years an active factor, have suffered a great loss.

Resolved, That his honest, fearless, friendly personality, his force, his instant condemnation of evil, and his frank appreciation of good, made of him one whom his associates and friends can ill spare and whom all will truly mourn.

Resolved, That this Association express to members of his family our heartfelt sympathy in the great loss they have sustained.

Resolved, That an engrossed copy of these resolutions be sent to his family, and that they also be spread upon the records of this Club.

A. W. STEDMAN,
E. E. WADBROOK,
GEO. P. WHITMORE,
Committee on Resolutions.



ARTHUR WINSHIP CLAPP.

THE rubber reclaiming business at Hanover, Mass., was begun in 1871 by the late Eugene H. Clapp, after having consulted with Mr. James Bennett Forsyth, of the Boston Belting Co., in regard to the prospective demand for a good reclaimed stock. Mr. Clapp perfected a process for removing fiber from ground rubber by means of an air blast, and the first order filled was for Mr. Forsyth. The business prospered from the beginning, and was the foundation of the fortune left by Mr. Clapp at his death, in 1892. Meanwhile he had become interested in numerous other enterprises, including the paper manufacture, and was a director in 29 corporations, of which he was president of six. Upon his death the reclaiming business was incorporated as The E. H. Clapp Rubber Co., which style has since been retained. Eugene H. Clapp, it may be added, was one of the founders of the Rubber Manufacturers' Mutual Insurance Co. The president of the rubber company to-day is E. H. Clapp, a son of the founder.

OBITUARY NOTES.

GEORGE W. LINSKOTT, of The Hyde Park Rubber Co. (Hyde Park, Massachusetts), died suddenly of heart failure at his home, on February 8. He was born at Woburn, Massachusetts, on May 9, 1843, and was educated in the public schools. In 1862 he enlisted in the National Rangers, Company K, Thirty-ninth Massachusetts Volunteers, with whom he served until the close of the Civil War. For 20 years he was connected with S. Klous & Co. (Boston Gossamer Rubber Co.), latterly as their general sales manager. On Mr. Klous retiring from business, Mr. Linscott was for a while engaged in the real estate business, after which he purchased an interest in The Hyde Park Rubber Co. The funeral was attended by many of his trade associates.

The Textile Finishing Machinery Co. (Providence, Rhode Island) announce the death on March 18 of HENRY ANTHONY TILLINGHAST, their secretary and treasurer.

THE RUBBER TIRE FIELD.

A TIRE CUSTOMS DECISION.

THE protest of the Auto Import Co. (New York) and others, against the payment of duties on automobiles as an entirety—on the ground that the tires should be admitted as manufactures of india-rubber, the rate on which is lower—has been overruled by the United States general appraisers, in a decision which upholds the collector of customs at New York. The rate on automobiles is 45 per cent. *ad valorem*; that on manufactures of india-rubber, 30 per cent. In the cases under review, the decision said, "The tires accompany each machine; are packed in the same case with it; they are of the particular size for and are intended to be used on it, and without them the machine would be practically useless." The decision added: "Bulky machines are usually imported in a knocked down condition—any other mode of shipping them is impracticable—but they are nevertheless entireties and dutiable as such just as if they arrived set up."

The board of appraisers were unable to see why the tires forming part of a given automobile should be admitted at a rate of duty apart from that assessed against automobiles, any more than other parts—wooden bodies, leather or cloth upholstery or chains, bolts, or nuts—all of which materials are covered by provisions of the tariff law equally specific with that for manufactures of india-rubber.

It may be of interest in this connection to note that 1,295 automobiles were imported into the United States during 1906, presumably each equipped with tires. If the contention of the importers had prevailed, it would affect the import duty on about 100 sets of tires each month.

TRENTON INNER TUBES.

A DISTINCTIVE feature of the inner tubes for automobile tires made by the Trenton Rubber Manufacturing Co. is their lack of porosity, resulting from a special treatment of the rubber which has led to some remarkable records in the way of long runs on tires equipped with these tubes, without reinflation being necessary. Two motor cars owned in Trenton and fitted with the "Trenton inner tube" have been run 10,000 miles each with a single inflation. The process referred to adds to the strength and durability of these tubes, in addition to the quality of retaining air.

EMPIRE AUTOMOBILE TIRE.

THE Empire automobile tire is cured in one operation in open steam, which method permits the fabric to retain its full original strength, while making the rubber tough, elastic, and durable. In addition to the use of good materials, the makers of this tire bring to their work the advantage of long experience in the rubber industry, and the sale of the tires is in equally experienced hands, so that while the Empire Automobile Tire Co. have only been organized of late, the men who are doing its work are by no means new to the business. The illustration herewith shows a sectional view of the Empire tire of the raised tread type, which is now the preferred style. The factory of the company is at Trenton, New Jersey. Another specialty of this factory is the Empire Peerless inner tube



EMPIRE TIRE.

THIRTY-EIGHT MILES OF BUGGY TIRES.

A CARLOAD of rubber tires shipped recently by the Firestone Tire and Rubber Co. (Akron, Ohio) to the Pontiac Buggy Co.

(Pontiac, Michigan), embraced 450 reels, holding 202,500 feet of tire stock, from $\frac{3}{4}$ -inch to $1\frac{1}{8}$ -inch in size. This was probably the largest shipment of such goods ever made at one time to one concern. The total length of tire stock was more than 38 miles. The Pontiac Buggy Co. makes vehicles with wheels of different sizes, one size requiring 41 feet of tires for four wheels; another size 46 feet, and a third, 58 feet per set. Taking 46 feet as the average, the carload of rubber would equip 4,400 buggies with tires.

DUNLOP TIRE PROFITS.

AT the annual meeting of the Dunlop Pneumatic Tyre Co., Limited (London, March 20), the reports showed profits during the business year, from all the Dunlop undertakings, of £226,303 7s. 7d. The profits for the preceding year were £146,711. These figures are much lower than for some of the earlier years of the company, but during the last two years, owing to the expiry of their patents, the company has not had any income from royalties. Their principal subsidiary company is the Dunlop Rubber Co., Limited, engaged in manufacturing, at Birmingham, and the earnings of this constituted the larger part of the totals given above. Harvey Du Cros, M. P., the chairman, informed the shareholders that the demand for Dunlop cycle tires was larger than ever, the production of cycles was larger than ever, and that their motor tire production exceeded that of all other British makers combined. He asserted that no foreign cycle tires had ever gained a footing in the British market. Dividends: 5 per cent. on the preference, 8 per cent. on the ordinary and 5 per cent. on the deferred shares. It is to be noted that the "parent" company's trading was conducted at a slight actual loss, the profits having been derived from the subsidiary companies.

TIRE MISCELLANY.

IN selecting the name "Troubleless" for their latest type of detachable tire, The Goodyear Tire and Rubber Co. (Akron, Ohio) have hit upon something that cannot fail to appeal to every motorist of experience.

The Continental Caoutchouc Co. (New York) are making the published statement that they fear only one competitor—"Lack of Knowledge." General Manager Gilbert does not specify whether he is the possessor of this "lack," whether he lacks this lack, or whether the luckless public does the lacking.

The Chase Motor Truck Co. (Syracuse, New York) now own a complete tire repair outfit, which they will use in connection with their constantly growing business.

The Western Rubber and Supply Co. have been incorporated to handle the G & J Tire Co. products at Denver, Colorado, with a location at No. 1010 South Main street. Guy West is the house manager.

H. & F. Mesinger Manufacturing Co. (No. 1801 First avenue, New York) are meeting with success in marketing an all-leather automobile tire; that is, everything is leather except the rubber inner tube. They may be obtained with the tread formed of steel plates fastened to the tire with special screws.



ALLEN TIRE LOCK—A PREVENTIVE OF THEFTS.

[For holding two 5-inch shoes. Made of Parsons's manganese bronze. The Allen Auto Specialty Co., New York.]

New Goods and Specialties in the Market.

COMFORT SLEEPING POCKET.

THIS pocket, which is quite different from a sleeping bag, consists of an air mattress, an air pillow, and an outer covering. The air bed or foundation is covered top and bottom with felt, and fits into the bottom of the pocket. A

patented stay device reduces the thickness of the bed to three inches, which in turn reduces the amount of air in the bed to three feet; notwithstanding which the resilience is retained. The smaller the amount



"COMFORT" SLEEPING POCKET.

of air in a bed the easier it is to inflate it, and at the same time the warmth from the body more quickly warms the air. The bed is practically puncture proof, since cactus or thorns cannot penetrate the several thicknesses of felt. The foot pocket is also made of felt and extends only to the knees. The air pillow is 11x16 inches, covered with felt, and attached to the bed with snap buttons. The cover, which forms the "sleeping pocket," is wearproof duck, light, strong, durable, windproof and water-proof, and lined with light but warm felt. This cover is not a shapeless bag, but conforms to the body, thus doing away with all unnecessary bulk and air space. Over the shoulders it has a fullness of 65 inches, while over the feet the fullness is but 30 inches. This affords plenty of room in which to wrap oneself up in blankets or to move without getting out of the pocket. The only opening, on the front side, is closed with snap buttons on an overlap, making it materially air and water tight. For home use the air sack may be taken from the pocket, placed on a bench or cot, and a comfortable couch has been evolved. When deflated and rolled its weight is 18 pounds. It is made in two sizes, 27x75 inches and 30x75 inches. [Metropolitan Air Goods Co., Reading, Massachusetts.]

SHEARS FOR CUTTING RUBBER.

THE blades in ordinary scissors are transversely concave inside, slightly curved and twisted. The object of this blade formation of course is to ensure the perfect contact of the cutting edges during the process of manipulation. However, in the case



"UNIVERSAL" SHEARS.

of a thin knife blade, when used for cutting heavy materials such as leather, rubber, and the like, this causes a twist when it is passed through the material to be cut, and causes the blade to become blunted. In order to avoid this, the "Universal" shears have set given to but one blade, and that the supporting one, thus leaving the cutting blade perfectly flat and straight on its inner surface. Should the shears have to be employed for cutting concave parts, as occurs, for example, in the cutting of soles of boots, it would be preferable to curve their blades. This renders them suitable for cutting all possible forms—straight, concave and convex. It is, of course, further evident that the curve of the blades may be either to the right or to the left. Briefly, these shears are subject to the same modifications as are the ordinary shears. They consist of the combination of two blades, one of which, the cutter, is flat on its inner face and

has an inner knife edge, while the other has a transversely concave inner face and a relatively wide and toothed supporting edge upon which the material to be cut rests while it is submitted to the action of the knife edge of the cutting blade. [Albert E. Rinn, Allentown, Pennsylvania.]

SATIN RUBBER COATS AND CRAVENETTES.

DAME Fashion has decreed that all the chic apparel of the smart woman shall not be confined to making its appearance in fine weather, but that rainyday garments shall have more consideration than has hitherto been accorded them. In consequence there was nothing to be done on the part of the ladies and the furnishers but to fall into line. How generally this has been done is evidenced by the magnificent displays that may be seen in the fashionable shops. Some of this season's raincoats are marvels of beauty, to say nothing of the more practical purposes which they so admirably serve. The first illustration herewith is of a garment made from a fine quality of satin with leather trimmed collar and cuffs and silk lined yoke. As will



DOUBLE BREASTED
SATIN RUBBER COAT.



CRAVENETTE
RAIN COAT.

be seen, the skirt is unusually full, and the large Japanese sleeves make it a much admired model. It is made in brown, black, and navy blue, and in other colors to order. For evening wear and for driving it has its uses also. The other illustration is a cravenette raincoat. These coats are made in all the latest and most desirable colorings and are lined throughout with Skinner's silk. The lines by their symmetry and beauty at once show that these garments are tailor made, and one is almost tempted to say that they defy criticism. At all events they disprove the old New England tradition that one's oldest raiment must be donned for the rainy day. The styles illustrated here have been chosen from the stock of C. J. Bailey & Co.'s Boylston street store, Boston.

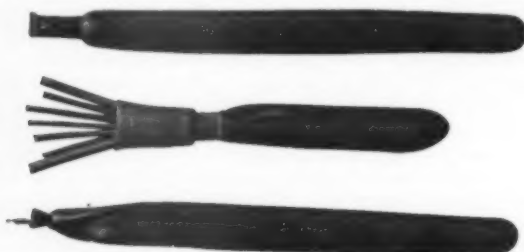
HEEL CUSHIONING DEVICE.

ESPECIALLY since the advent of the rubber heel have there been all manner of devices for deadening the jar of walking. Naturally rubber has figured largely in the composition of these devices, but one of the latest unites rubber and a metal spring. Three rounded metal pins which extend through the heel are

connected with springs concealed in the middle of the heel. These springs in turn press upon a rubber lift, giving the resiliency which it is intended. This device is patented by John Sheehan, of New York City.

GOODRICH CATHETER BAG.

THE devices for the proper care of all delicate instruments are quite as numerous as the instruments themselves. The part that rubber plays in both particulars is something noticeable, when even a casual enumeration is made. The catheter is one of the most delicate of instruments and hence needs correspondingly



GOODRICH CATHETER BAG.

careful handling. The Goodrich Catheter Bag is made of fine Para seamless rubber, with reinforced bottom and elongated neck, which can be securely closed by tying at the neck with a tape or string. For carrying catheters in an antiseptic solution this is a perfectly safe way as the bag, even when filled, is flexible. [The B. F. Goodrich Co., Akron, Ohio.]

A NEW PHYSICAL EXERCISER.



MULLER'S PHYSICAL EXERCISER.

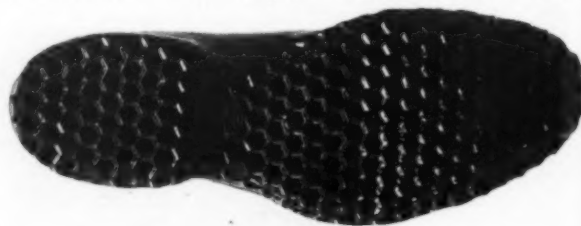
THE illustration relates to an exercising apparatus comprising elastic bands or cords, each provided at one end with a handle and at the other end with a foot attachment or stirrup, and a waist belt adjustable at the front and back and provided with guide rings for the elastic bands fixed on opposite sides of its front ends. There are means for adjusting the elastic bands to the stirrups and to the handles at the top. The waist belt is provided with means through which the elastic bands pass freely, and with means for varying the size of the felt without changing the position of the elastic bands relatively to the body of the user. A United States patent for this invention has been granted to Georg Müller. [Kolberger Austalten für Exterikultur Wilhelm Anhalt G. m. b. H., Kolberg, Germany.]

OVERSHOE CREEPER.

A NEW anti-slipping device for overshoes is a metallic creeper to be attached to the shank of the shoe, but normally it does not touch the ground. Above it is a clamping piece and a strip of flexible material on which is imposed a false heel in two sections. When it is desired to make the creeping effective the false heel is brought into commission by being folded upon itself and then over upon the clamping piece. The pressure of the shank of the leather shoe upon the false heel forces the shank of the overshoe downward and brings the creeper in contact with the ground. This device has been patented by John Hunt, of Woonsocket, Rhode Island.

TWO CANADIAN SHOE NOVELTIES.

AMONG the more recent novelties in rubber footwear are to be recorded two that have been introduced in Canada. First to be mentioned is the "Honeycomb" sole, illustrated herewith



"HONEYCOMB" SHOE SOLE.

from a photograph, the object of which is to lessen liability to slip. This sole is applicable to any style of rubber footwear, but is suited particularly for sporting shoes—yachting, tennis, lacrosse and the like. The trade mark "Honeycomb" is registered. The second illustration relates to a patented device for



"ELECTRIC CONDUCTOR" SHOE SOLE.

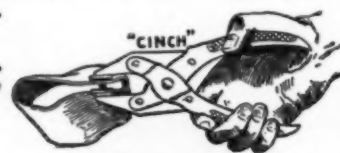
conducting electricity from the body to the ground, the means employed being the placing of tubular rivets in the heel and toe portions of the rubber sole. [The Berlin Rubber Manufacturing Co., Limited, Berlin, Ontario.]

THE CINCH REPAIR KIT.

ONE of the quickest methods for puncture repairs, and one for which the greater virtue of permanency is claimed for it, is that employed when using the "Cinch" tire repair kit. It requires no cement, no vulcanizing, no patchwork, no labor, no delay, and (it is claimed) no skill. The work is accomplished by means of a small rubber coated metal seal inserted in the puncture. The pointed end of the cutting tool—which is a part of the outfit—is pushed through the puncture and then the knurled wheel which



RUBBER COATED SEAL FOR PUNCTURES.



THE PLIERS IN USE.



TIRE SECTION, SHOWING PUNCTURE CLOSED.

carries the cutter down is screwed, thereby making a smooth hole. The ends of the wire opening tool are inserted in the hole and gripped there in order to stretch the opening with the lips outward sufficient to admit the seal. When this is inserted it should be seen that the convex side of the seal is on the outside and that the puncture is well within the seal. The pliers are then used to insure the security of the position of the seal, and after a generous application of soapstone, the tube is ready for use. [Auto Goods Co., Boston.]

Recent Patents Relating to Rubber.

UNITED STATES OF AMERICA.

ISSUED MARCH 5, 1907.

- N**O. 845,809. Heelpiece [for shoes]. B. Nathan and H. Cohen, assignors to The Nathan Ankle Support Co., New York city.
 845,842. Pneumatic wheel [with solid rubber tire]. W. L. Barnard, St. Louis.
 846,082. Hoofpad. C. Bellmann, assignor to himself and A. Glans, Milwaukee, Wis.
 846,387. Material of fabric and rubber. [Parallel adjacent layers of fabric treated with rubber, combined with a uniting and finishing film of rubber of material thickness, completely enclosing the edges of the layers of fabric.] C. C. Bebe, Arlington, Mass.
 846,408. Vulcanizing apparatus [for tire repairs]. H. H. Frost, assignor to Harvey Frost & Co., Ltd., London, England.

Trade Marks.

- 23,807. Revere Rubber Co., Boston. The word *Unity*. For rubber belting, hose, and machinery packings.
 25,079. The Omo Mfg. Co., Middletown, Conn. The word *Armia*. For dress shields.

ISSUED MARCH 12, 1907.

- 847,041. Automobile tire winding machine. E. D. C. Bayne and L. A. Subers, Cleveland, Ohio.
 847,042. Hose coupling. J. Berk, San Francisco.
 847,231. Pneumatic tire [with inner tube divided into a number of compartments]. A. F. Bryce, Chicago.
 847,268. Automatic hose valve. R. D. Wirt, Philadelphia.

Trade Marks.

- 18,512. Goodyear Rubber Co., New York city. The word *Lincoln*. For rubber boots and shoes.
 23,120. Roberts, Johnson & Rand Shoe Co., St. Louis. The word *Noxall*. For rubber boots and shoes.
 25,132. New Jersey Car Springs and Rubber Co., Jersey City, N. J. The word *Reliable*. For hose and belting.

ISSUED MARCH 19, 1907.

- 847,442. Tire. [The tread portion formed of a combination of spaced sockets and spaced ears located therein.] J. M. Shepard, Findlay, Ohio.
 847,466. Vehicle tire. [Wearing surface composed partly of rubber and partly of textile fibers, in a manufactured form of uniform thickness, arranged side by side to alternately bear against each other, the fibers uniformly supporting the rubber.] T. Gare, New Brighton, England.
 847,620. Hose clamp. C. M. Thompson, Newark, Ohio.
 847,775. Truss pad [of sponge rubber]. W. H. Horn, Jr., Philadelphia.
 847,926. Spring wheel [with solid rubber tire]. J. H. Fawkes, Detroit, Mich.

Trade Marks.

- 24,656. The Fisk Rubber Co., Chicopee Falls, Mass. The word *Victor*. For pneumatic bicycle tires.
 25,151. Edward Z. Jefferson, Pittsburgh, Pa. The letters *E. Z.* For rubber belting and hose.
 25,272. Pneumatic Cushion Rubber Heel Co., Boston. Figure of a woman in an oval outline, outside of which, on either side, is a maltese cross. For rubber heels.

ISSUED MARCH 26, 1907.

- 848,017. Vehicle rim [for pneumatic tires]. P. Ebner, Columbus, Ohio.
 848,177. Tire protector. [Metallic tread plates]. C. E. Kimball, Dunning, Neb.
 848,330. Hose reel. I. A. Grimsrud, Spokane, Wash.

Trade Marks.

- 18,486. The Diamond Rubber Co., Akron, Ohio. The word *Diamond*. For pneumatic and other rubber tires.
 25,575. A. G. Spalding & Bros., New York city. The word *Spalding*. For elastic bandages, supporters and suspensories.

[NOTE.—Printed copies of specifications of United States patents may be obtained from THE INDIA RUBBER WORLD office at 10 cents each, postpaid.]

GREAT BRITAIN AND IRELAND.

PATENT SPECIFICATIONS PUBLISHED.

The number given is that assigned to the Patent at the filing of the Application, which in the case of those listed below was in 1905.

*Denotes Patents for American Inventions.

[ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, FEBRUARY 20, 1907.]
 21,631 (1905). Tire filler or core of rubber and cork, vulcanized. A. J. Boulton, London.

- 21,818 (1905). Mats or tiles [formed of two ribbed rubber sheets, the projections on the one sheet making an angle with those on the other, the sheets being united at the edges to form air-tight joints]. R. K. Gray, India Rubber Works, Silvertown.
 *21,824 (1905). Appliance for cleaning the teeth and gums. J. W. Dennis, Cincinnati, Ohio.
 21,879 (1905). Submarine vessel. D. Jennings, Castleisland, Kerry.
 *21,901 (1905). Pneumatic tire with puncture-preventing feature. J. A. Murphy, Holyoke, and W. S. Manning, Springfield, Massachusetts.
 21,926 (1905). Pneumatic tire with means for preventing creeping. Lady Sophia Lampson, London.
 21,964 (1905). Repair patch for tires and tubes. E. B. Haslam, London.
 21,973 (1905). Spring wheels [having a pneumatic tube inside the metal rim, and a solid rubber tire outside]. A. F. Hawksley, Fairhaven, Lancashire.
 22,000 (1905). Tire-inflating device connected with one of the cylinders of the explosion engine of a motor car. A. J. Boulton, London. (L. Macquaire, Paris.)
 22,015 (1905). Spring wheel [with rubber buffers and solid rubber tire]. S. Guignier, Genes, France.
 22,069 (1905). Finger stall for photographers' use. J. Hansen, Drejs, Denmark.
 22,105 (1905). Tire-inflating device [connected with explosion cylinder of a motor car]. L. Serné and M. Parker, London.
 22,112 (1905). Detachable rim for motor tires. G. Vinet Neuilly (Seine), France.
 22,153 (1905). Vulcanizer for tire repairs. G. W. T. Leeson, Kingsbury, Warwickshire.
 *22,212 (1905). Pneumatic tire and means for its mechanical attachment. J. C. Cole, of The Fisk Rubber Co., Chicopee Falls, Massachusetts.

[ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, FEBRUARY 27, 1907.]

- 22,322 (1905). Heel protector. W. W. Phillips, Sutton, Surrey.
 22,358 (1905). Appliance for curing knock knee and the like. O. Semeder, Vienna, Austria.
 22,433 (1905). Pneumatic tire [with outer protective band]. W. S. Cort, Harborough.
 *22,501 (1905). Armored pneumatic tire. F. X. Moyer, Tama, Iowa.
 22,504 (1905). Method of devulcanizing india-rubber. [The rubber is heated with a solvent, which is subsequently distilled off.] M. Korner, Grinau, Prussia.
 22,573 (1905). Pneumatic tire with leather tread band. W. F. Hough, Rochdale.
 22,596 (1905). Vacuum cleaner for carpets. J. R. Blum, Paris, France.
 22,609 (1905). Ear appliance. A. Mallock, London.
 22,766 (1905). Pneumatic tire with puncture-proof cover. R. Harrison, W. J. Saxton, Wolverhampton.
 22,796 (1905). Machine for cutting sheet rubber from a revolving cylindrical block. T. E. and G. Musto, East London Iron Works, London.
 *22,800 (1905). Sole pressing pads for sole laying machines. A. J. Boulton, London. United Shoe Manufacturing Co., Boston.)
 *22,815 (1905). Vaginal syringe. [The conical soft rubber shield is made with a fluted hole to prevent rotation upon a correspondingly fluted hard rubber nozzle.] C. J. Davol, Providence, Rhode Island.

[ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, MARCH 6, 1907.]

- 22,864 (1905). Solid rubber tire. E. B. Killen, London.
 22,865 (1905). Pneumatic tire with protective band of leather and metal. A. Whittall, London.
 22,944 (1905). Sole and heel protector. F. J. Walton, East Finchley, Middlesex.
 22,978 (1905). Device to prevent tires from skidding. P. V. McMahon, London.
 23,007 (1905). Hoofpad. J. Crookshanks, London.
 23,028 (1905). Door stop. A. G. Spencer, London.
 23,030 (1905). Pneumatic tire with puncture-proof band of rubber. H. Witcomb, Hadley, Suffolk.
 *23,033 (1905). Fabric foundations for tire covers. C. L. Marshall, London. (J. W. Hyatt, Newark, New Jersey.)
 23,093 (1905). Solid tire, composed of rubber blocks. P. T. J. Eastler, Old Charlton, Kent.
 23,105 (1905). Ginning roller [consisting of a metal cylinder of pierced tin or other metal, and a covering of india-rubber]. R. Entwistle, Kearsley, near Manchester.
 *23,108 (1905). Leather boot, waterproofed with rubber. G. F. Butterfield, Boston.
 *23,123 (1905). Elastic tire. [Thick cover and resilient core of transverse truss walls.] F. W. Beasley, Baltimore, Maryland.
 *23,125 (1905). Elastic tire. Same.

- 23,145 (1905). Pneumatic tire [with protective tread of metal plates]. J. P. Le Grand, Paris.
 23,252 (1905). Golf ball. A. Urquhart, Edinburgh, and H. Hansen, Leith.
 23,344 (1905). Pneumatic tire with anti-skidding band. E. C. Robinson, Durham.
 23,414 (1905). Elastic tires [with core of waste sponge or the like]. M. Rossmann, Paris, France.
 23,481 (1905). Pneumatic tire [with leather jacket]. J. G. Grose, Northampton.

[ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, MARCH 13, 1907.]

- 23,512 (1905). Tire protective covering of ramie, hemp or other like fibers. E. Bardoc and L. Clerc, trading as Société Bardoc, Clerc & Co., and B. Desouches, all of Paris, France.
 23,525 (1905). Tire inflater operated by the motor car while traveling. C. Nielsen, Copenhagen, Denmark.
 23,578 (1905). Tubeless pneumatic tire. J. D. Roots, London.
 23,590 (1905). Machine for making tire fabric [such as used in the Palmer "cord" tire]. T. and R. Sloper, Devizes, Wiltshire.
 23,706 (1905). Rim for resilient tire [with the detachable flange]. C. F. Hutchinson, Durham.
 23,715 (1905). Pneumatic tire with studded tread. E. W. Coleman and A. J. Glidden, London.
 23,750 (1905). Golf club with rubber sticking face. W. B. Hartridge, Seaford.
 23,845 (1905). Spring wheel [with rubber seat for the felloe]. J. Davies and H. Payton, Birmingham.
 23,857 (1905). Spring wheel [having rubber buffers or rings within the rim]. W. Freakley, Hanley and R. Bill, Stoke-on-Trent.
 23,868 (1905). Pneumatic wheel [with rubber cushion in the interior, and solid rubber tire]. J. Partington, Saltaire, Yorkshire.
 *23,884 (1905). Protective band of metal or leather for tire covers. C. S. Barrell, Boston.
 *23,898 (1905). Elastic tire. [A series of metal springs, with rubber cover.] H. Kerngood, Baltimore, Maryland, and H. A. Taylor, New York city.
 23,927 (1905). Elastic tire. [A series of metal springs, with cover of rubbered canvas.] E. V. Belledin, Paris, France.
 [ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, MARCH 20, 1907.]
 24,260 (1905). Heel protector. A. R. Huskisson and G. Morton, Blackley, near Manchester.
 *24,305 (1905). Hose coupling. L. R. Nelson and J. R. Morrison, Boulder, Colorado.
 24,320 (1905). Elastic tire [of leather or rubber sections, in circumferential compression]. M. Lamy, Paris.
 24,346 (1905). Portable vulcanizer [particularly for pneumatic tires]. H. H. Frost, London.
 24,406 (1905). Wheel rim [formed in two parts in order to attach rubber tires with embedded metallic bands and with oppositely coned bases]. A. von Lude, Frankfurt-on-Main, Germany.
 *24,437 (1905). Belt [having corrugated inner rubber strip to keep a shirt waist in place]. J. Eisman, Toronto, Can.
 24,472 (1905). Pneumatic tire [with leather protective strip]. I. Watts, Great Grimsby.
 24,517 (1905). Inner sole for boots. H. A. Silver, London.
 *24,547 (1905). Pneumatic eraser. [Described in THE INDIA RUBBER WORLD, May 1, 1906—page 263.] C. E. McGill, Owensboro, Kentucky.
 24,569 (1905). India-rubber studs for the soles and heels of boots; also for use as billiard tips, door stops and insulating studs. T. H. Collingbourne, Blackburn, Lancashire.
 24,622 (1905). Elastic or plastic compound [to be made from the latex of *Sapota Mullerii*, for insulation or waterproofing, alone or in connection with india-rubber]. H. E. Kershaw, Kenley, Surrey.
 24,626 (1905). Spring wheel [rim composed of a series of metal studs, supported on a rubber cushion]. W. Rendall, London.
 24,788 (1905). Pneumatic tire [with puncture proof shield of small steel plates]. F. Woodgates, Tiverton, Devonshire.

- 369,293 (July 5). F. Bulgheroni. Elastic material for vehicle tires.
 369,297 (July 21). M. Maunier. Spring wheel, with interior pneumatic chamber.
 369,345 (Aug. 29). Symons and Humphrey. Composition having rubber as a base, to replace rubber in various uses.

[NOTE.—Printed copies of specifications of French patents may be obtained from R. Bobet, Ingenieur-Conseil, 16 avenue de Villiers, Paris, at 50 cents each, postpaid.]



A SPRING WHEEL OF THE SUSPENSION TYPE, SHOD WITH SOLID RUBBER TIRE.

INDIA-RUBBER GOODS IN COMMERCE.

EXPORTS FROM THE UNITED STATES.

OFFICIAL statement of values of exports of manufactures of India-rubber and Gutta-percha for the month of February, 1907, and for the first eight months of five calendar years:

MONTHS.	Belting Packing and Hose.	Boots and Shoes.	All Other Rubber.	Total.
February	\$109,952	\$59,855	\$280,619	\$450,426
July-January	691,286	858,714	2,040,592	3,590,592
Total	\$801,238	\$918,569	\$2,321,211	\$4,041,018
Total 1905-06	834,554	1,303,164	1,836,312	3,974,030
Total 1904-05	591,309	1,018,122	1,541,217	3,150,648
Total 1903-04	596,536	901,017	1,586,720	3,084,273
Total 1902-03	524,847	912,855	1,407,722	2,845,424

Exports of reclaimed rubber for the past eight months amounted in value to \$431,663.

THE FRENCH REPUBLIC.

PATENTS ISSUED (WITH DATES OF APPLICATION).

- 368,575 (Aug. 2, 1906). M. Hahn. Spring wheel.
 368,613 (Aug. 3). Michelin et Cie. Pneumatic tire with removable rim.
 368,614 (Aug. 3). Michelin et Cie. Pneumatic tire with removable rim.
 368,615 (Aug. 3). Michelin et Cie. Pneumatic tire with removable rim.
 368,674 (Aug. 7). P. La Force. Elastic tire.
 368,656 (Aug. 6). Sabourin. Spring wheel with interior pneumatic feature.
 368,727 (Aug. 9). Christoffe and Menteyne. System of wheels with flexible tires.
 368,977 (Aug. 17). A. G. Rigot. Tire inner tube with multiple sections.
 368,958 (Aug. 6). A. Foelsing. Preparation of pure rubber.
 369,116 (July 31). C. Zéglen. Imperforable tire.
 369,126 (Aug. 13). E. P. Moirand. Elastic tire.



LARGE SUCTION HOSE, MADE BY THE NEW YORK BELTING AND PACKING CO., LIMITED.

Rubber Goods Manufacturing Co.'s Annual.

THE eighth annual meeting of shareholders of the Rubber Goods Manufacturing Co., on April 11, at the registered offices of the company in Jersey City, New Jersey, may prove the last in the history of the corporation. As has been reported in these pages, the shares of the company having been acquired by the United States Rubber Co., its liquidation has been determined upon. The annual reports of the officers of the Rubber Goods were read and approved, and are here given in full:

PRESIDENT DALE'S REPORT.

TO THE STOCKHOLDERS OF THE RUBBER GOODS MANUFACTURING Co.: The annual report of the treasurer of your company, submitted herewith, shows this year quite a large increase in the volume of business, as well as in the profits over all preceding years.

This good showing of the company is largely attributable to the advantages derived from the close association of this company with the United States Rubber Co. through the latter's large holding of stock in this company. During the past year the selling forces and distributing agencies of the United States Rubber Co., both in this country and in Europe, have been availed of for the marketing of the products of the subsidiary companies of the Rubber Goods Manufacturing Co., thus affording to your company a greatly enlarged selling organization without additional expense.

Another important advantage in connection with this company's co-operation with the United States Rubber Co. is in the purchase of crude rubber through the joint ownership of the General Rubber Co. I stated in my last annual report that the benefits to be derived from this source warranted the expectation that your company and the United States Rubber Co. would occupy a position of unique advantage in this most important branch of the business. These expectations have been substantially realized, so that to-day it may be confidently stated that no other company in the world manufacturing rubber goods has such a well equipped organization for the obtaining of supplies of crude rubber; and it is believed that no other company is able to obtain a comparable advantage in the acquisition of its requirements of the crude material.

While, as above indicated, large benefits have already accrued to our company through its co-operation with the United States Rubber Co., there has not yet been time to realize the fullest possible measure of benefit. In this connection a committee has been appointed for the purpose of effecting the liquidation under the laws of New Jersey, where the company is incorporated, of the Rubber Goods Manufacturing Co., thus bringing our subsidiary companies into still closer relation with the United States Rubber Co.

The usual quarterly dividends of $1\frac{3}{4}$ per cent. each have been paid during the year on the preferred stock and a dividend of 1 per cent. has been paid on the common stock. The question of paying further dividends upon the common stock has been the subject of consideration by your board of directors, whose decision was that further dividends upon the common stock should be deferred for the present.

With the aid of the president of the United States Rubber Co. and Mr. Anthony N. Brady, your president has effected an amicable settlement of the controversy with the Pope Manufacturing Co., which has been in litigation during the past three years. The adjustment is deemed an equitable one and gives entire satisfaction to both parties, the result being that your company now has the Pope Manufacturing Co., one of the largest manufacturers of bicycles and automobiles in the country, as firm friends and customers.

The new plant of the Morgan & Wright company at Detroit, Michigan, referred to in my last annual report, has been in complete operation since last summer and is, without doubt, the most modern and economical plant in the world for the manufacture of tires and miscellaneous rubber goods.

All the plants of the subsidiary companies of the Rubber Goods Manufacturing Co. have been maintained at the same high standard as in previous years, and in many instances large additions have been made in order to keep pace with increasing business.

THE MECHANICAL RUBBER GOODS manufactured by those of our subsidiary companies engaged in that branch of the business have established such a superiority that they are regarded in the trade as standard.

Your companies engaged in the manufacture of automobile and vehicle tires have made great advances, more than doubling in a few years their percentage of the total tire business of the country. This results largely from the fact that they have been pioneers in bringing out the more important improvements which have been made in the art—notably the "Midgley detachable rim," which was the first rim of its kind placed on the market, and the "Midgley wire grip" or "anti-skid," which is becoming very popular and finding a rapidly increasing sale. Besides these reasons, however, there is the fundamental one that the "Dunlop" and "Clincher" tires as manufactured by the Hartford, Morgan & Wright and G & J companies are not excelled by any other make, whether American or European.

Reports from subsidiary companies on business done since the close of their fiscal year, December 31, 1906, which is not covered in the reports appended, show that such companies have maintained the ratio of increased sales shown during the year covered by this report, and the orders for future delivery are greater than ever before; all of which would indicate no abatement of the past year's prosperity in the rubber business, at least so far as concerns the business of the Rubber Goods Manufacturing Co.

Respectfully submitted,

CHARLES H. DALE, President.

Jersey City, New Jersey, April 11, 1907.

BALANCE SHEET.

ASSETS.		Mar. 31, '07.	Mar. 31, '06.
Cash	\$	483,819.92	\$ 383,593.65
Mortgage notes (for property sold)		18,000.00	19,000.00
Accounts receivable		88,709.21	7,792.26
Investments, stocks of allied companies		27,639,722.15	27,458,779.69
Total assets	\$	28,230,251.28	\$27,869,165.60
LIABILITIES.		Mar. 31, '07.	Mar. 31, '06.
Preferred stock	\$	10,351,400.00	\$10,351,400.00
Common stock		16,941,700.00	16,941,700.00
Working capital		576,065.60	
Bills payable		160,000.00	
Total liabilities	\$	28,029,165.60	\$27,293,100.00
Surplus	\$	201,085.68	\$ 576,065.60
INCOME AND DISBURSEMENTS FOR YEAR ENDING MARCH 31, 1907.			
Income from dividends declared by allied companies for year			\$1,226,248.98
Less total expenses for year			131,148.30
Net income			\$1,095,100.68
Four dividends paid to March 31, 1907, Preferred		\$724,598.00	
One dividend paid to March 31, 1907, Common		169,417.00	894,015.00
Balance surplus	\$	201,085.68	

SYNOPSIS OF OPERATIONS OF ALLIED COMPANIES FOR YEARS ENDING DECEMBER 31.

	1906.	1905.
Sales	\$19,737,120.81	\$17,662,453.00
Gross earnings.....	2,646,458.85	2,202,035.77
Net balance of profit.....	2,004,484.26	1,358,485.29
Dividends declared for year.....	\$1,276,286.98	\$985,835.91

[a—to March 31, 1907. b—to March 31, 1906.]

The annual election resulted in the board of directors being continued without change, as follows:

Charles H. Dale,	Ernest Hopkinson,	Charles A. Hunter,
Frank W. Eddy,	Arthur L. Kelley,	Samuel P. Colt,
Anthony N. Brady,	Lester Leland,	John J. Watson, Jr.

On a later date the board elected as the officers of the company: Charles H. Dale, president; Lester Leland and Charles A. Hunter, vice-presidents; John J. Watson, Jr., treasurer; Samuel Morris, secretary, and John D. Carberry and James McGuffog, each with the title assistant treasurer and assistant secretary.

The financial reports were audited by Henry T. Bragg, C. P. A.

AN HISTORICAL SUMMARY.

THE Rubber Good Manufacturing Co. was in a sense an outgrowth from The Mechanical Rubber Co., formed under the laws of New Jersey in 1892 for the merger of five important and successful concerns manufacturing rubber goods. On January 26, 1899, articles of incorporation were filed in New Jersey for the Rubber Goods Manufacturing Co., which combined the holdings of The Mechanical Rubber Co. with six other mechanical goods factories which, prior to that time, had been operated independently. Other companies were added later. The enlarged company had authority under its charter to issue stock to the extent of \$50,000,000, but the whole was never required for the acquisition of the companies that came under its control. The organization of the Rubber Goods Manufacturing Co. was completed May 4, 1899, at which time it was announced that shares to the extent of \$17,536,000 had been issued. Gradually the amount was increased, as indicated in certain annual reports, as follows:

	Preferred.	Common.	Total.
Original issue.....	\$ 6,196,600	\$11,840,000	\$18,036,600
First annual report.....	1,424,700	3,294,600	4,719,300
Second annual report.....	430,100	1,807,100	2,237,200
Seventh annual report.....	2,300,000		2,300,000

Total, March 31, 1907.....\$10,351,400 \$16,941,700 \$27,293,100

The companies subsidiary to the Rubber Goods Manufacturing Co. at present are:

Mechanical Rubber Co. (holding company).
Peerless Rubber Manufacturing Co.
*New York Belting and Packing Co., Limited.
*Fabric Fire Hose Co.
Hartford Rubber Works Co.
Morgan & Wright.
Indianapolis Rubber Co.
India Rubber Co.
Sawyer Belting Co.
Mechanical Fabric Co.
*Stoughton Rubber Co.
Sandy Hook Reclaiming Works.
G & J Tire Co.
*Chicago Rubber Works.
*Cleveland Rubber Co.
American Dunlop Tire Co.
Single Tube Automobile and Bicycle Tire Co.
Midgley Manufacturing Co.

The companies indicated by (*) were included in The Mechanical Rubber Co. The Peoria Rubber and Manufacturing Co., acquired in 1899, was liquidated soon after. The Single Tube company is the holding company for the single tube tire patents, and through other companies named the Rubber Goods Manufacturing Co. holds the "Clincher" and Dunlop tire patents in the United States and controls the Midgley detachable rim for motor tires. They have also a license for manufacturing solid tires under the Grant patent. A few figures will indicate the im-

portance of the operations of the Rubber Goods Manufacturing Co. to date:

Sales 1900.....	\$13,364,090
Sales 1901.....	14,348,048
Sales 1902.....	13,999,329
Sales 1903.....	14,310,752
Sales 1904.....	14,556,289
Sales 1905.....	17,662,453
Sales 1906.....	19,737,121

The official statements of dividends actually disbursed within the several fiscal periods afford these figures:

1899	\$ 769,624.83
1900	1,434,693.73
1901	1,469,948.00
1902 (to March 31, 1903).....	1,678,723.64
1903 (to March 31, 1904).....	938,860.72
1904 (to March 31, 1905).....	563,598.00
1905 (to March 31, 1906).....	679,098.00
1906 (to March 31, 1907).....	894,015.00
Total	\$8,428,561.92

Of the original signers of the incorporation papers of the Rubber Goods Manufacturing Co. the only one now identified with the company is Charles H. Dale, who has been a director in the company from the beginning and, since 1903, president.

During 1905 negotiations were begun which resulted in the merger of the Rubber Goods Manufacturing Co. with the United States Rubber Co., through the issue of additional capital shares of the latter in exchange for the shares of the Rubber Goods company, and the logical outcome is the liquidation of the Rubber Goods company now pending. The capital outstanding of the United States Rubber Co. is \$35,067,000 in first preferred stock, \$9,586,300 in second preferred, and \$25,000,000 in common stock; total, \$69,653,300, of an authorized issue of \$75,000,000.

WANTS AND INQUIRIES

[391] WE are asked to put a correspondent in touch with makers of submarine diving outfits, with pump and hose complete.

[392] A manufacturing company wishes names and addresses of importers and dealers in chicle gum.

[393] The names of manufacturers of single and double texture rubber cloth are asked for by one of our readers. This cloth is desired in quantities of from 300 to 1,000 yards.

[394] A Western company wishes to know purchasers of pumice stone among rubber manufacturers.

[395] Small rubber-covered brass staples are desired by an Ohio manufacturing company.

[396] A correspondent wishes to know if it is practical to put the heating pipes in a shoe vulcanizer in the top of the vulcanizer instead of the bottom, as is the usual custom.

[397] A reader would like to communicate with mechanical rubber goods manufacturers who do their own reclaiming from scrap rubber.

[398] A foreign correspondent would like the addresses of American manufacturers of strips of camel's hair belting for lining the brake bands of cycles and motor cars.

[399] A Canadian company would like to correspond with a manufacturer of small nails used in the making of rubber-headed nails. Correspondence with a firm manufacturing small plain tacks (steel), not with brass heads, is particularly desired.

[400] Information is desired as to the production, throughout the country, of dental dam, in pounds or yards.

[401] Any information about the Mexican Mining and Plantation Co. would be welcomed by a reader. Its officers, location, etc., figure in the information desired.

[402] A reader wishes to know the names of companies that can furnish cashmerette, black and red fleece or shag, and all kinds of net, such as is used in the manufacture of arctic and gum shoes.



ARTHUR W. STEDMAN.



HENRY C. PEARSON.



FREDERICK H. JONES.

NEW ENGLAND RUBBER CLUB'S ANNUAL.

THE eighth annual meeting of the New England Rubber Club was held on Monday evening, April 15, at the American House, Boston. The Club's entertainment committee had arranged for a "Smoker" and vaudeville entertainment for this occasion, the announcement for which was recalled in consequence of the sudden death of Mr. Arthur W. Clapp, a member. President Alexander M. Paul occupied the chair, and the annual reports were read and approved.

Treasurer's Report.

RECEIPTS.		
Bank balance April 17, 1906.....		\$786.34
For initiations.....	\$80.00	.....
For dues.....	1,153.75	.....
For assessments.....	2,225.92	3,459.67
Total		\$4,246.01
DISBURSEMENTS.		
For dinners.....	\$2,162.68	.....
Sundries as per vouchers.....	1,254.83	\$3,417.51
Bank balance and cash on hand April 15, 1907		828.50
Total		\$4,246.01
FREDERICK H. JONES, Treasurer.		

Report of the Secretary.

The completion of the seventh year of the Club's existence finds it prosperous financially, and with a membership of two hundred and twenty-seven.

Three public functions, a "Smoker," an "Outing" and a "Midwinter Dinner," are in retrospect. All were well attended and thoroughly enjoyed. At the first named, Richard Arthur told of a ten thousand mile trip up the Amazon. At the Outing we enjoyed the presence and the oratory of the regular army; while at the Midwinter Dinner, Vice-President Byrnes and others interested us in the problems of transportation. Around each of these dinners cluster pleasant memories that will long remain.

During the year the Club has been elected to membership in the State Board of Trade. Our delegates to that organization are A. M. Paul, A. W. Stedman and W. H. Gleason.

From them, Mr. Paul was chosen and elected to the board of vice-presidents of the body named.

Two of our founders and best known members have passed to the Great Beyond: George H. Forsyth and Arthur W. Clapp. We shall miss them at our meetings, and long cherish their memories.

The year in prospect, our eighth, opens well. There is no falling off in membership and the sense of comradeship that has ever been a feature of this Association grows stronger year by year—a good augury for continued interest and success. Respectfully submitted,

HENRY C. PEARSON, Secretary.

The annual election of officers and directors resulted in the choice of the following: Officers: Arthur W. Stedman, president; Henry C. Pearson, vice-president; Frederick H. Jones, treasurer; Robert L. Rice, secretary; Walter M. Farwell, assistant secretary. Directors: Costello C. Converse, Joseph Davol, Elisha S. Williams, Ira F. Burnham, George P. Whitmore, E. E. Wadbrook. The list of honorary vice-presidents now includes: The Hon. L. D. Apsley, the Hon. A. O. Bourn, Robert D. Evans, James Bennett Forsyth, George H. Hood, Henry C. Morse, John H. Flint and Alexander M. Paul.



ROBERT L. RICE.



WALTER M. FARWELL.

ALEXANDER M. PAUL.

ALEXANDER MACADAM PAUL is not at all ashamed of the fact that he was reared in Boston, the year of his birth being 1867. He was educated in the public schools and in the Boston Latin School. In 1885 he began his business career by working in the store of the Conant Rubber Co., then at No. 72 Federal street. He remained there for three years and then, still employed by the same company, took a position in their Hartford store, where he remained three years. In 1891 he went to Andover, New Jersey, and connected himself with the Standard Musical String Co. In 1896 he was a factor in amalgamating all of the factories making strings for musical instruments, the company being known as the National Musical String Co. Of this he was secretary and treasurer. In 1897 he built an up-to-date factory at New Brunswick, N. J., for this corporation, and two years later sold out his interests at a handsome profit.



ALEXANDER M. PAUL.

In 1900 Mr. Paul became general manager of the Boston Woven Hose and Rubber Co., which position he has held up to this time with conspicuous success. When he took hold of this company the annual sales were about \$1,000,000; to-day they are more than \$3,000,000, and the business is exceedingly profitable. Mr. Paul is a gifted organizer, and when getting things into shape is a glutton for work.

Physically he is wonderfully strong, and not only has great executive capacity, but remarkable endurance. He is an enthusiastic sportsman, as far as shooting and fishing go, and while not specifically a club man, is a member of the Algonquin Club in Boston, and the New York Athletic Club. He is also one of the honorary vice presidents of the New England Rubber Club.

WHAT is now the Boston Woven Hose and Rubber Co. dates from 1880, in which year, under the name Boston Woven Hose Co., the manufacture of rubber lined, multiply-woven cotton hose was begun in a small way under a new process at Cambridge, Massachusetts. The company was composed of Colonel Theodore A. Dodge, as capitalist, and the late Robert E. Cowen, a practical machinist, who had assisted in the development of the special loom used. The first year's sales reached 15,000 feet of hose, after which the business expanded rapidly, and in 1884 the Boston Woven Hose Co. was incorporated with \$150,000 capital, J. Edwin Davis becoming associated with it. Gradually the production of other lines of rubber goods was taken on, and in 1891 the corporation style was changed to the Boston Woven Hose and Rubber Co. For many years the list of directors was unchanged—Messrs. Dodge, Cowen, and Davis, together with James N. Smith, now president of the company, and the late Rhodes Lockwood. In 1898, at a time when the bicycle tire trade was suffering a decline, the company, then very large makers of tires, became embarrassed, and for a time the factory

was operated by assignees. In the following year there was a reorganization, with a paid in capital of \$1,200,000, since when the company has had an uninterrupted career of success in the manufacture of all kinds of mechanical rubber goods.

RECENTLY Mr. Paul purchased the entire capital stock of the Davidson Rubber Co., since which time he has resigned the management of the Woven Hose company. The Davidson Rubber Co. takes its name from the late Dr. Herman E. Davidson (1815-1895), inventor of a notable improvement in rubber syringes, but who was never concerned in their manufacture. The patents were purchased just before 1860 by H. D. Lockwood, a nephew of Dr. Davidson, but until Goodyear's patent expired, in 1865, the rubber parts had to be purchased from licensed rubber manufacturers. Mr. Lockwood, with whom at various times his brothers were associated, then put in a rubber plant, and in 1868 the present factory, at Charlestown, Massachusetts, was built, though important additions have since been made to it. At various times, from 1858 until his death (in 1905), Rhodes Lockwood was interested in the business, and for some years conducted it alone. There were various co-partnerships, at different times, involving members of the Lockwood family, but all the while the trade name "Davidson Rubber Co." was used, and in 1904 the business was incorporated under that name, with Rhodes Lockwood president. The company manufactures a wide range of druggists' and stationers' sundries, and various other specialties.

AMERICAN CONGO INTERESTS.

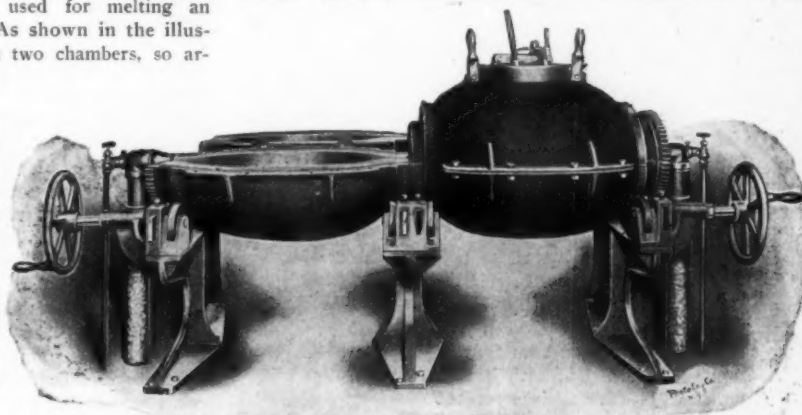
THE departure of the first expedition in the interest of the American Congo Co. to the region covered by their concession was noted in THE INDIA RUBBER WORLD for April 1 (page 218). The same group of capitalists, as has been stated already, are interested also in the Société Internationale Forestière et Minière du Congo, formed to exploit a larger concession than that of the American Congo Co. While the larger company's territory embraces, as is believed, mineral resources of great value, which are to be developed, the company will also be prepared to work any rubber which may be found within the limits of the concession. THE INDIA RUBBER WORLD is informed, on authority, that King Leopold is particularly desirous that the forest and mining company shall engage extensively in rubber planting. On May 30 a prospecting and exploring party of twelve will leave Belgium for the Luebo region, in the interest of this company, headed by Colonel R. Dorsey Mohun, an American, who has had much experience in Congo affairs, having been at times in the service of the Free State. Mr. S. H. Ball, of the United States Geological Survey, will also be in the party. The United States Geological Survey, will also be in the party. Mr. A. Chester Beatty has returned to the States.



WORKS OF THE DAVIDSON RUBBER CO.
[Recently purchased by Alexander M. Paul.]

ROCKWELL DOUBLE CHAMBER FURNACE.

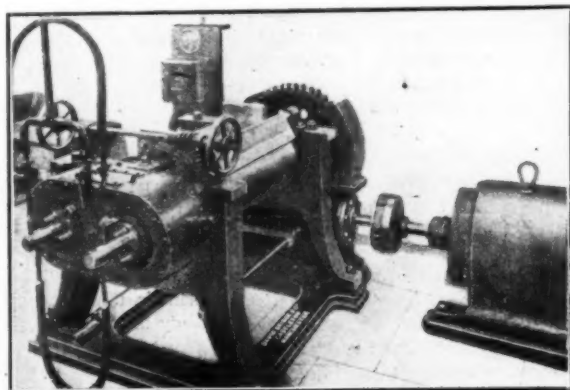
THE illustration relates to a metal melting furnace for copper, brass, bronze, aluminum, steel and iron which has given special satisfaction in machine shops, including a shop connected with one of the largest rubber factories in the country. In the case referred to, the furnace is used for melting an alum alloy for molds for rubber work. As shown in the illustration, this furnace is constructed with two chambers, so arranged that they may be used alternately. The exhaust heat from the active or primary chamber goes into the other, thereby simultaneously melting in one chamber and heating the metal in the other to very near the melting point, with one burner and at no additional cost. Besides the economy involved, this makes melting practically continuous, permitting melts of various mixtures of metals to follow one another in rapid succession. This furnace is adapted to oil or gas fuel and the construction is such that there is very little heat lost or radiated. [Rockwell Engineering Co., No. 26 Cortlandt street, New York]



WHILE ONE CHAMBER IS OPEN FOR RE-LINING THE OTHER CAN BE USED.

ELECTRIC DRIVES FOR RUBBER MACHINES.

NOTHING is more trying to the ordinary steam engine drive than a load which varies widely, running suddenly from light demands to a high maximum. The London journal *Electricity* recently reported an instance where a rubber masticator run by a steam drive and becoming overloaded, made serious



SINGLE GEARED RUBBER MIXING AND SHEETING MACHINE, DRIVEN THROUGH FLEXIBLE COUPLING.

trouble for the whole factory in which it was used. An electric motor, with the perfection in which, and of their connections, they are now made, not only does its work, but can be depended upon to do "tough" work as well as light.

Messrs. David Bridge & Co., of Castleton, Manchester, England, have been supplying some rubber machinery on a large scale, adapted for driving with electric motors, which has given thorough satisfaction. The experience has been that though the load on such machines is very irregular, there is no trouble in driving them with

electric motors that are well laid down, powerful enough for their work, and designed with a reasonable allowance for overload during short periods. More than one machine geared to the same motor may be run independently of each other, if desired, and arrangement of friction clutches permits the machines to be started or stopped

without shock or jar. There is little power lost, as compared with the loss between a steam engine and various machines with rapidly altering loads.

The illustration herewith is of a single geared rubber mixing and sheeting machine, electrically operated through a special cut worm gearing. The speed of the 20 HP. motor used is 450 revolutions per minute. It drives on to the worm gear through a flexible coupling; the worm wheel itself is keyed on to the roller end, and runs at 16 revolutions per minute. It acts as a driver for the front roller as well—a novel arrangement for heavy rubber machinery and one that works satisfactorily.

It is hardly necessary to say that there is enormous loss of power with mechanical transmission between a steam or other engine and various machines with rapidly altering loads. The electric motor can be designed to tackle that work, not only without fear of breakdown, but with decided economy and efficiency.

BLACK DIAMOND TOOL POINTS.

THE turning of fountain pen barrels and a great variety of other articles made of hard rubber is a branch of the rubber industry that calls for a number of special appliances. There are used in this connection tools pointed with carbon (black diamond), and these points are variously shaped to adapt them to particular uses. The illustrations herewith relate to such carbon points, made by Thomas L. Dickinson, No. 45 Vesey street, New York. These points are used also for turning fiber, celluloid, and other rolls, involving material of a tough, hard or gritty nature, on which a steel tool will not hold its edge and where it is desired to turn out a large number of pieces of uniform size.



CARBON (BLACK DIAMOND) TOOL POINTS.

THE RUBBER TRADE IN TRENTON.

THE Woven Steel Hose and Rubber Co. have commenced the erection of a new building. It will be a substantial one-story structure of brick, 60 x 130 feet, and will cost \$6,600. The site is a good one on Dale street, along a branch of the Philadelphia and Reading railroad. This will give them fine shipping facilities. The company expect to occupy the building about July 1 next. The new structure is made necessary by the growing business of the concern. Although the company manufacture a general line of mechanical rubber goods, their specialty is hose reinforced with a woven steel armor. The demand for this hose is spreading and the company recently sent a consignment to South Africa.

Trenton continues to gain new rubber companies. The latest addition to the list is the Bar Lock Rubber Tile Co., which was chartered in that city on April 8. It is capitalized at \$75,000 and will manufacture and deal in rubber tiles. The incorporators are Thomas Hydes, Edward Hyke, and Fred S. Wilson, all of Trenton. The incorporators, when seen, stated that the plans of the new company had not been fully developed.

The Coomber Rubber Co., with headquarters at Woodcliffe-on-Hudson, New Jersey, was incorporated at Trenton on April 17. It has an authorized capital stock of \$15,000. The incorporators are Robert Rowley and J. J. Coomber, of No. 170 Broadway, New York, and Alfred J. Ellis and Frank C. Gruen, of Woodcliffe-on-Hudson. The charter states that the concern will carry on the business of general manufacturing, with especial reference to rubber and its products.

There failed to pass the New Jersey legislature, which adjourned on April 12, a bill in which all the Trenton manufacturers, including the rubber men, were particularly interested. The measure, introduced by Senator Colby, was designed to remove the barrier to obtaining damages for injury where the employe continued in the defendant's employ, although knowing that the machinery was not properly guarded or protected. The bill was defeated in the senate.

The Trenton Rubber Manufacturing Co. are meeting with gratifying success in the sale of inner tubes for automobile tires. Placed on the market late last season as an experiment, the tubes have already made a name for themselves. So thoroughly have the "Trenton" inner tubes been appreciated that the company are filling orders for dealers in high-class goods and placing the customers' name brand thereon, they backing the quality of the tubes.

The Union Rubber Co. have added a new line to their business, that of jobbing in a full stock of rugs. This makes its business a triple one, as besides a full line of mechanical rubber goods they handle oilcloths and linoleums in large quantities. Wilson H. Harding, general manager, speaking of the Trenton rubber trade generally, states that business is exceptionally good. Orders are coming in more rapidly than the raw materials can be obtained to manufacture the goods.

The Prudential Rubber Co., the incorporation of which was referred to in THE INDIA RUBBER WORLD for February (page 160), have got to business, and the officers report that trade is opening up very promisingly. The concern have organized by electing E. Furman Hooper president and Charles F. McCoy secretary and treasurer. Mr. McCoy also has charge of the Trenton office. A New England office has been opened at No. 11 Union street, Boston, in charge of P. A. Murphy.

William R. Thropp, manufacturer of rubber machinery, reports that business is opening up briskly for the season, and his works on East State street are unusually busy. He has just completed a contract for the Empire Automobile Tire Co., for whom he has installed a set of automobile tire molds and has also put in a new 42-inch four-platen hydraulic press. This is of a special pattern with tilting tables. Another recent order of

Mr. Thropp is one for the Ennis-Ruff Tire Co., of New York city. This includes calenders, two mills, and several presses.

Business is booming at the plant of the Acme Rubber Manufacturing Co., according to General Manager John A. Lambert. In fact, the orders are coming in so rapidly that the works are being operated three evenings each week. Some trouble is being experienced in obtaining raw materials rapidly enough. Plans are being completed for extensions to be made to this factory, and it is expected ground will be broken about July 1. Then the new buildings will be rushed to completion in time for next season. The additions will be to the main building. The westerly end will be extended about 60 feet and the easterly extension will be about 80 feet long. Each will be three stories high.

Two employes of the Home Rubber Co., Frank Embley and P. J. McGlone, were held in \$200 bail each for the Grand Jury by Police Justice Frederick P. Rees, at Trenton, on April 17. The charge was stealing crude rubber from the Home company. They had been missing rubber for some time and an investigation led to these two employes mentioned being suspected. It is claimed that they sold the rubber to a local junk dealer.

Harry E. Evans, manager of the Consolidated Rubber Co., has fully recovered from a three months' siege of typhoid fever. He states that he finds business booming, at a rate of 20 per cent. ahead of last year this time.

The Standard Rubberized Pitch Co., which claims to have invented a substitute for india-rubber, was incorporated at the office of the secretary of state on April 23. The concern is capitalized at \$125,000 and its headquarters are in Point Pleasant Beach, Ocean county, New Jersey. According to the charter it will manufacture and deal in rubberized pitch and all other kinds of pitch; also all kinds of tar, resin, oil, paint, stains and wood preservatives. It will also conduct a general timber and lumber business. The incorporators are Lena McGhee, William R. Gulick, Elwood C. Jones and Frederick S. Wack, all of Point Pleasant Beach.

Quartermaster General C. Edward Murray, of the Crescent Belting and Packing Co. and the Empire Rubber Manufacturing Co., accompanied by Mrs. Murray, left Trenton on April 26 for an extended trip to the Pacific coast. After visiting San Francisco, Los Angeles and other points they will return to Trenton about May 27.

THE RUBBER TRADE IN AKRON.

BY A RESIDENT CORRESPONDENT.

THE Diamond Rubber Co. are planning extensive building operations in connection with their plant in this city, and work on two of the new structures is already started. It was to provide funds for the expense of these additions, in part, that the recent large increase in the company's capitalization was made. They will expend \$30,000 on an addition to the power plant. The new building will be 60 x 40 feet, and when completed will give the company one of the best and most complete power plants possessed by any manufacturing concern in the country. Work is in progress on another building, 320 x 100 feet, five stories high, which will serve as a general addition to the tire department. A new addition to the shipping room will be 160 x 80 feet and three stories in height. This structure will also contain the general offices and the hose department.

The B. F. Goodrich Co. are preparing to begin, about May 1, the erection of two important buildings on property recently purchased by them, lying between their factory and South Main streets. It is planned to erect a four-story office building on the south corner of Rubber street, the dimensions of which will be 125 x 50 feet. On the opposite corner will be a five-story factory building of about the same dimensions. Both structures will be built of the new fireproof reinforced concrete,

used in the construction of the other big factory building recently erected facing Main street.

Although no authoritative statement has been made to this effect, it is generally understood among Akron tire manufacturers that no attempt will be made to contest the decision of the United States Circuit Court, at New York, in favor of the owners of the Grant patents on solid tires, in their suit against the Firestone Tire and Rubber Co. [See THE INDIA RUBBER WORLD, March 1, 1907, page 189.]

Frank A. Seiberling, general manager of the Goodyear Tire and Rubber Co., has filed suit in the United States Circuit Court at Buffalo, New York, against the Hartford Rubber Works Co., alleging infringement of patent No. 765,044, granted to him July 12, 1904, for a vehicle wheel rim. Morgan & Wright and the G & J Tire Co. are also made defendants. The plaintiff asks for an injunction restraining the defendants from making or selling the wheel rims alleged to infringe his patent, and also that the profits from the sale of such articles hitherto be turned over to him.

THE RUBBER TRADE IN SAN FRANCISCO.

BY A RESIDENT CORRESPONDENT.

THE first anniversary of the great San Francisco fire (April 18) found a great amount of rebuilding completed or in progress, and the people of the city imbued with a spirit of hopefulness and determination that bespeaks a greater and more splendid city than before the catastrophe. But much remains to be done to remove the traces of the fire, particularly in the way of restoring the streets. These notes have referred already to the heavy demand for rubber footwear due to the muddy condition of the streets, and now that the winter is over the rough condition of the streets may be credited with an increased demand for rubber automobile tires.

The Diamond Rubber Co., who have maintained their Pacific coast branch in Oakland since the fire, have opened a fully equipped store on Golden Gate avenue, in the heart of the San Francisco automobile district, in charge of J. H. Ingersoll. The Oakland branch will be continued until the Diamond company are installed in a permanent building, which they hope will be within a year.

The Pacific coast agency of the Consolidated Rubber Tire Co., in charge of H. W. Bogen, is located in well arranged quarters at No. 766 Golden Gate avenue, where a complete line of goods is carried.

Chanslor & Lyon have opened a store at No. 542 Golden Gate avenue, for the sale of rubber goods and automobile supplies.

The International Rubber Co. (Milltown, New Jersey) have opened an uptown branch at No. 426 Golden Gate avenue, while maintaining their wholesale branch on Market street, both being in charge of Hughson & Merton, their Pacific coast representatives.

Mr. Squires of the lately organized firm of Barton, Squires, Byrne, Inc., is reported to have severed his connection with the house.

The Pacific Coast Rubber Co. are about to sign a lease for space in a large permanent building to be erected at Fremont and Mission streets.

P. T. Sprague, who left the Goodyear Rubber Co. a year ago to engage in business as a manufacturer's agent, and who has been since the fire located at his residence in Pine street, has opened an office at No. 10 Front street.

Louis Fotro, after having been connected with the Goodyear Rubber Co. for more than 20 years, has retired, with a view to opening a store at Haywards, California.

Hugson & Merton, representing the International Rubber Co. on the coast, have taken offices at No. 438 Market street, and are fitting up a modern store for carrying a stock on Golden Gate avenue, in the midst of the automobile trade district.

RUBBER INTERESTS IN EUROPE.

GREAT BRITAIN.

THE last year's trading of British Insulated and Helsby Cables, Limited, showed a profit of £197,112, against £133,902 in the year previous. Dividends: 6 per cent. on the preference and 8 per cent. on the ordinary shares, with a bonus of 2 per cent.

Turner Brothers, Limited (Rochdale), have laid down special plant for making balata belting, an article for which the demand in this country is increasing rapidly.

Dividends amounting to 6½ per cent. were paid by The Gandy Belt Manufacturing Co., Limited, out of their profits for 1906; additions to reserve, £2,000; carried forward, £1,654.

The Palatine Rubber Co., makers of rubber heels, at Preston, have gone into liquidation; their assets have been purchased by The Leyland and Birmingham Rubber Co., Limited.

The only British firm having the right to use the patented winding machine used in making the Haskell golf ball is The St. Mungo Manufacturing Co., of Govan, Glasgow, Scotland.

The news appears in a Ceylon newspaper of the liquidation of the Threnfall Carr Rubber Syndicate, Limited, formed in England a few months ago to exploit the wheat or cereal rubber to which the daily newspapers for awhile devoted so much space. A notice of the liquidation of the company is said to have appeared in the London *Standard* of January 28 last.

SUBSTITUTE FOR CHICLE.

GJM-CARBO, one of the products from cotton seed oil by processes owned by The Gum Carbo Co. (Gulfport, Mississippi), is being offered as a substitute for india-rubber for a number of purposes, at varying prices, depending upon the uses to which the material is to be applied. It is also being marketed as a substitute for chicle in the manufacture of chewing gum. There are now in the United States a large number of chewing gum manufacturers, whose requirements call for the importation of the crude gum at the rate of about 500,000 pounds per month, and the New York retail price of the crude gum is now 45 to 48 cents per pound. The Gum Carbo Co. are offering their chicle substitute at 20 cents.

GUAYULE INTERESTS.

THE holdings of guayule lands in Mexico of the Madero family were stated at 300,000 acres in an article in THE INDIA RUBBER WORLD of March 1 (page 177). Such an area would not be considered at all large in the region referred to. The fact is that the Messrs. Madero own upward of 3,000,000 acres.

The Coahuila Mining and Smelting Co. (Viesca, Mexico) requests that the name Mexican Crude Rubber Co. be used in all correspondence with their guayule department, though the mining department will continue to be conducted under the old name.

A NEW GUAYULE FACTORY.

THERE has been organized lately at Torreón, Mexico, a new company in the guayule interest—La Compañía Hulera de la Laguna—for which a factory is being constructed at Gomez Palacio, in the state of Durango. On March 16, A. S. Valdespino was elected president; Miguel Torres, treasurer; S. A. Suarez, secretary; Enrique Sanchez, director, and H. G. Guenther, manager. The capital stated is \$60,000 (Mex.), and the intended capacity one ton of product daily.

Articles of incorporation have been filed under the laws of Texas by the Texas Rubber Co., composed of leading citizens of San Antonio, in that state, with \$100,000 capital, to establish a factory at Marathon, in Pecos county, to extract rubber from the guayule plants abounding there.

News of the American Rubber Trade.

UNITED STATES RUBBER CO.'S AFFAIRS.

THE net earnings of the United States Rubber Co. for the fiscal year ended March 31 (March partially estimated), after payment of all interest charges, were approximately \$4,405,873.84, which included dividends amounting to \$684,308.32 received upon stock of the Rubber Goods Manufacturing Co. in this company's treasury. This sum received does not represent the total earning power of the Rubber Goods company, which, besides paying 7 per cent. on the preferred stock, has been showing a large balance on its common stock. The earnings for the last quarter of the United States Rubber Co.'s fiscal year were considerably larger than for the average for the first three-quarters of the year, which is attributed to the improved trade in rubber footwear since January 1.

The board of directors of the United States Rubber Co. on March 4 declared the regular quarterly dividend of 2 per cent. upon the first preferred stock and the regular quarterly dividend of 1½ per cent. upon the second preferred stock, for the quarter beginning January 1, from the net earnings of the fiscal year, payable April 30 to stockholders of record April 15.

The annual meeting of the shareholders for the election of directors and the transaction of any other business which may properly be brought before the meeting will be held at the registered office of the company in New Brunswick, New Jersey, on May 21, at 12 o'clock M.

ANOTHER RUMORED RUBBER MERGER.

REFERRING to certain reports published during the month, an official of the first company named here advises THE INDIA RUBBER WORLD: "There is no announcement to be made at the present time about the proposed merger of the United States Rubber Co. and the Intercontinental Rubber Co., the same being principally newspaper talk." The rumors in question were to the effect that the two companies would join interests with a combined issue of \$150,000,000 in securities. The Intercontinental company was incorporated recently in New Jersey with \$40,000,000 capital, and is the holding company of the Continental-Mexican Rubber Co. and the American Congo Co.

THE HOODS TO MAKE MOTOR TIRES.

THE Shawmut Tire Co. have begun the manufacture of automobile tires at East Watertown, Massachusetts. They start with a very full factory equipment, the result of experiments and testing carried on for five years past. The tires will be marketed under the brand "Shawmut." The company was registered as a Massachusetts corporation on February 4, 1907, under the name Meteor Tire Co., which was changed later to the Shawmut company. Frederick C. Hood is president and A. N. Hood treasurer, these gentlemen being officers in the Hood Rubber Co. The offices are at No. 97 Bedford street, Boston.

DUNLOP TIRE INFRINGEMENT SUITS.

THE two suits filed by the Hartford Rubber Works Co. in the United States circuit court for the southern district of New York, on March 12, 1907, against the Goodyear Tire and Rubber Co. and the Firestone Tire and Rubber Co., allege infringement of patent No. 488,492, dated December 20, 1892, to Brown and Stillman. The invention covered is identical with that under the British patent to C. K. Welsh and the patent is that under which the Dunlop tire has had protection in the United States.

DIAMOND RUBBER CO.'S NEW YORK BRANCH.

THE Diamond Rubber Co. of New York, who for several years past have maintained two selling depots in New York city—one for mechanical goods, in Reade street, and one for

tires, at No. 1717 Broadway—are consolidating them, from May 1, at No. 1876 Broadway. The new premises are larger than both the old locations combined by 4,200 square feet. The management will be in the hands of Mr. H. J. Woodard, who has been identified with the Diamond company's interests in New York for nearly two years. The business of the company here is so large that it has been incorporated under the laws of New York state as a separate concern.

DUNLOP TIRE PATENTS IN CANADA.

THE extension of the factory of the Dunlop Tire and Rubber Goods Co. (Toronto, Canada), noted in the last INDIA RUBBER WORLD, has for its reason in part the favorable result of the company's efforts in regard to certain legislation. The company manufacture Dunlop cycle and automobile tires under two Canadian patents—one granted to Fane and Lavendar in February, 1892, and one to C. K. Welsh in October, 1892. Previous to June, 1892, the life of a Canadian patent was 15 years, in three terms of 5 years. In that month the law was changed to extend the duration of a patent to 18 years, in three terms of 6 years. The Dunlop company applied to the Canadian parliament to make the term of the Fane and Lavendar patent of equal length with that of the Welsh patent, and to give to the patent office the power to revive the Welsh patent, which, owing to the non-payment of the fee for one term, had been allowed to expire. The Dunlop company were successful on both points, though the bill in parliament was strongly opposed by other manufacturers, who were planning to make Dunlop tires. The patents will now hold good until October, 1910. One reason advanced for the special legislation referred to was that two patents having been granted for one invention, litigation resulted, on account of which no benefits were realized for the first three years.

FAULTLESS RUBBER CO.—REMOVAL.

THE Faultless Rubber Co. announce that in view of the removal of their factory and general offices from Akron to Ashland, Ohio, all mail matter intended for them should be addressed to the latter place. They will maintain a branch office at Akron.

THE "PEERLESS" FACTORY STILL GROWING.

THE Peerless Rubber Manufacturing Co. have broken ground for a large three story factory building at their plant at New Durham, New Jersey. This, with other improvements, when finished will give the Peerless company the distinction of having the largest mechanical rubber plant in existence.

There will be several new calendering machines, a large number of presses for mold work, besides a new installation of washers, grinders, mixers, etc. These improvements, when completed, will add to the capacity of the plant about 30 per cent. For the last four years this company has been running both a night and day force, and it is hoped that the new improvements will do away with this necessity. The department in which the "Rainbow" and "Peerless" packings and the "Eclipse" gaskets are manufactured will also be greatly enlarged and improved.

BALATA TARIFF CASES FINALLY SETTLED.

THE secretary of the treasury advises that no further proceedings will be directed by the government in the matter of an import duty on balata in view of the recent decision in the United States court for the southern district of New York, declaring this gum to be properly included as "india-rubber, crude," under paragraph 579 of the Tariff act. [See THE INDIA RUBBER WORLD, April 1, 1907—page 216.] Importers who have paid duties on balata are entitled to a refund.

FACTORY ENLARGEMENT AT BRISTOL.

THE insulated wire department of the National India Rubber Co. (Bristol, Rhode Island) is being enlarged by the erection of a two story brick building, 450 x 60 feet, which, with its equipment, will increase the capacity of the department fourfold. The building is so located as to permit the connection with it as "ells" of two old buildings, which will be devoted also to the wire department. Two years ago this department contained only 150 braidings, and by the end of 1907 it is planned to increase this number to about 3,000. The National company are also installing an electrical power plant, to drive all the machinery in the new building, as well as machinery at some isolated points in the old factory. This will involve an addition to the boiler capacity of the factory, and the company will also do all their own lighting. It is planned to increase the number of the company's employees to 2,500 when the new addition is completed. The insulated wire department, with the additions completed, will form the largest plant in any country for rubber covered wire work, with a capacity estimated at 5,000,000 feet daily. The extension has been planned with a view to meeting what is believed to be a growing demand for rubber covered wire, at home and abroad, and the company intend to be in a position to enter foreign markets with their wire products.

NEW JERSEY CORPORATIONS SUSPENDED.

THE governor of New Jersey announces the suspension from the list of corporations formed under the laws of that state for non-payment of corporation taxes for 1904, of a large number of companies. The list of suspensions includes the following concerns related more or less to the rubber interest:

Air Cushion Horse Collar Co.
Commonwealth Mexican Plantation Association, Inc.
Consolidated Rubber Works. Incorporated 1896; capital, \$500,000; made the "Kangaroo" bicycle tire at Chelsea, Mass.
Davenport Hose Coupling Co.
Electric Rubber Manufacturing Co. Incorporated October 6, 1903; capital, \$1,000,000; made motor tires at Rutherford, N. J.; now in receiver's hands.
Gregory Rubber Co. Incorporated August 22, 1902; capital, \$125,000; formed to make a tire patented by W. F. Gregory, of Springfield, Mass.; never in operation.
Keystone Pneumatic Hose Co.
Pennsylvania Plantation Co.
Pneumatic Wheel Co.
Swift Flyer Golf Ball Co.
T. S. Buck Manufacturing Co. Incorporated December 22, 1901; capital, \$100,000; to make rubber stamps in New York; reorganized under New York laws April 27, 1904.
Tennant Auto Tire Co. Succeeded, June 7, 1905, by a new corporation of the same name under the Ohio laws; located at Springfield, Ohio; exploited a puncture proof tire.

MERCHANTS' ASSOCIATION OF NEW YORK.

THE Merchants' Association of New York have issued their Year Book for 1907, including the last annual report of the president, which is an interesting summary of the work done by this important organization. The association, though composed of a local membership, exert a far-reaching influence as a result of their investigations and efforts to influence business methods and legislation. The importance of New York as a business center is such that measures adopted for merely local reasons may have a beneficial effect throughout the country. For example, the benefits from lower passenger rates for merchants visiting the city are not confined to New York alone. The same is true of revisions of freight rates, the postal laws and so on. The president claims that the association was directly instrumental in bringing about the *modus vivendi* between the United States and Germany whereby the operation of the drastic German tariff laws, as affecting this country, has been suspended until the situation can be studied by an Ameri-

can commission, with a view to adequate legislation at Washington. The new Merchants' Association building, at Nos. 66-72 Lafayette street, affords admirable headquarters for the work which is being carried on. It is satisfactory to see the rubber trade so well represented in the membership of the association, but there are a number of other rubber houses which might do well to consider the advisability of becoming members.

CHANGES OF ADDRESS.

THE Amsterdam Rubber Co., handling the products of the Joseph Banigan Rubber Co. in New York, will occupy from May 1 larger quarters at No. 107 Duane street than they have had hitherto in Reade street. They have more spacious offices and sample room, and will be able to carry a larger stock than in the past.

Joseph Cantor, importer of crude rubber and rubber substitutes, has removed from No. 56 Pine street to Nos. 82-92 Beaver street, New York.

The Arkay Rubber Co. (New York), handlers of elastic bands and other rubber specialties, have removed from No. 35 Warren street to No. 111 Chambers street.

The Boston office of E. H. Clapp Rubber Co. has been removed from No. 35 to No. 49 Federal street.

The Philadelphia Rubber Works have removed their offices to their extensive new factory.

Maryland Rubber Co. (Baltimore) removed on April 15 to larger premises at No. 37 Hopkins place. They have a general rubber goods house and are selling agents for their territory for the National India Rubber Co. and The Peerless Rubber Manufacturing Co.

The Philadelphia branch of the B. F. Goodrich Co. (Akron, Ohio) has been removed to larger quarters, at No. 1332 Arch street.

The Chicago branch of Morgan & Wright (Detroit, Michigan) has been removed to No. 81 Michigan avenue.

Sterling Rubber Co., a jobbing concern organized lately in San Francisco, with the Pacific coast accounts of the Voorhees Rubber Manufacturing Co. and the Seamless Rubber Co.; have been obliged already, by the growth of their business, to remove to larger quarters, at No. 301 Market street.

NEW ENGLAND RUBBER CLUB.

At a meeting of the Executive Committee of the New England Rubber Club, held on April 20, the following committees were appointed:

Dinner.—Francis H. Appleton, chairman; John S. Patterson, W. E. Barker, T. J. Skinner, and E. H. Clapp.

Entertainment.—George H. Mayo, chairman; R. L. Dorr, E. E. Fay, George O. Currier, Jr., and C. J. Bailey.

Auditing.—J. Frank Dunbar and George P. Eustis.

Sports.—W. E. Farrington, chairman; H. G. Tyer, F. C. Hood, F. G. Balderston, and R. L. Chipman.

Resolutions.—George P. Whitmore, chairman; E. E. Wadbrook and A. M. Paul.

The Executive Committee of the Club have accepted the invitation of Mr. Wilbur E. Farrington, one of the musical members of the Club, to attend a private musicale at Chipman Hall, Boston, on the evening of May 10 at 7:35 o'clock. A quartet of male voices, with a piano, organ and string band accompaniment, are features of the entertainment. The instrumental music referred to above will be from the "Choralcelo"—the wonderful electrical piano, that is piano, church organ, military band, violin, human voice, or whatever the player wishes. The entertainment is free to members of the New England Rubber Club and their ladies.

PARA RECOVERY CO.

A CONTRACT has been signed between the Para Recovery Co. (Bayonne, New Jersey) and the New York Commercial Co. under which the latter become exclusive agents for the sale of the former company's products in the United States and abroad. —At the last meeting of the directors of the Para Recovery Co. Mr. G. E. Heyl-Dia was elected president.

THE RUBBER FOOTWEAR TRADE.

WITHIN the past month many newspapers printed rumors to the effect that an advance in the prices of rubber footwear would be made, probably to take effect from May 1. THE INDIA RUBBER WORLD, on going to press, in answer to inquiries made at the offices of the United States Rubber Co., is advised that nothing is known there of an advance in prices. It has not been deemed worth while to pursue the inquiry further. The only change that has taken place in selling terms since the first of the year is that the cash discount for prepayment of accounts was increased on April 1, as is usual, and was announced beforehand.

Newspaper reports continue to refer to the advance in rubber footwear made January 1, whereas there has been no change in net prices since April 1, 1906.

Conditions in the rubber shoe trade underwent a decided change for the better during the latter part of the winter. It was a poor rubber season until after New Year's, but the supply of snow from the first of February was most favorable for business, continuing to an unprecedentedly late date. On April 9 5½ inches of snow fell in New York City, being the heaviest fall on record for so late a date.

The rubber footwear factories are busy, after a brief shut-down for stocktaking and repairs at the end of March.

THE TRADE AT DENVER.

THE Denver Rubber Co. (Denver, Colorado) have disposed of their retail department and removed from their former premises to Nos. 1433-1435 Lawrence street, where they will occupy the entire building, with increased facilities and a larger stock than hitherto. Mr. R. A. Kincaid continues as president, and the company are exclusive representatives of several leading manufacturers of mechanical rubber good and sundries.

The retail department of the business has been purchased by Phil Arnold, Jr., who for several years had been manager of the company, and removed to No. 434 Sixteenth street, Denver, where he has opened a retail business under the style of Goodyear Rubber Store Co. The firm has no connection with any of the other Goodyear rubber stores, though there is some Eastern capital interested. The new company will carry on a general retail and mail order business in rubber goods.

WILLIAM H. SCHEEL—FIRE.

THE entire stock of William H. Scheel, dealer in paints and varnish materials, and supplies for rubber and other manufacturers, at No. 159 Maiden lane, New York, together with the building, was destroyed by fire early on the morning of April 4. Mr. Scheel was prepared, however, to take orders for immediate or future deliveries of any of the lines previously offered by him to the trade, with little or no delay of shipments, except on large orders, and these he was able to take care of from lots previously ordered and coming forward, or from stocks cabled for immediately after the fire. The concern will be located at No. 140 Maiden lane until the old premises can be rebuilt.

TRADE NEWS NOTES.

THE Trident Tire Co. (New York) are reported to have under consideration the question of doing their own manufacturing. It is understood that the company booked 158 orders at the Chicago automobile show, including one for 4,000 tires.

Certain imported French tires were recently before the customs appraisers at New York with the result that they were valued for entry as follows: The tires varied in size from 32½ x 4½ inches to 36½ x 4½ inches, and were appraised at from \$49.22 to \$54.04 each—averaging \$51.63 each, or \$206.52 per set, without duties paid.

The seventh annual convention of the National Electrical Contractors' Association of the United States will be held in New York on July 17-19, and promises to be the most largely attended and probably the most interesting convention the association has held.

TRADE NEWS NOTES.

THE Akron Rubber Engineering Co. (313-314 Everett building, Akron, Ohio) are establishing a business of systematizing mechanical equipment for rubber factories. Their special line will be to make plans and specifications for rubber factories.

Charles W. Harris, formerly Chicago manager for the Pennsylvania Rubber Co., has been appointed general manager for the American Cellular Tire Co., who are bringing out a new tire, with offices at 812 Great Northern building, Chicago. Alexander Adamson (Akron, Ohio) has contracted to supply molds for the new tire.

The Garter Cross Co. have been incorporated in Connecticut with \$20,000 capital, and will establish a factory at New Haven.

The Sullivan Insulation Co. was incorporated February 18, 1907, under the laws of New York; capital, \$10,000. Directors: John S. Durand and John Bowen, No. 81 Fulton street, New York; Maurice Sullivan, No. 85 South Fifth street, Brooklyn, N. Y. Incorporated principally to exploit a patented removable and replaceable flange and flange fitting covering, and to contract for boiler and pipe coverings. The charter authorizes the company to manufacture insulated wires and cables, using rubber or any other insulating material.

The Rubber Balloon Co. of America (Newark, New Jersey), formed some two years ago to manufacture toy balloons by a special process, have retired from business.

At the banquet of the Rochester (New York) Automobile Club on March 25, the handsome menu cards had a cover design, the principal feature of which was a representation of the Goodrich-Bailey Tread tire.

Mr. Thomas G. Richards, president of the B. & R. Rubber Co., delivered an address on the evening of April 10 before the Appleton Club of North Brookfield, Massachusetts, on india-rubber, the methods of obtaining the raw material, and the processes of manufacture.

The employees of the Davol Rubber Co. (Providence, Rhode Island) gave a concert and "social" on the evening of April 15 which was well attended and much enjoyed by those present. The committee in charge included Daniel J. McCarthy, George Cosgrove, G. W. Whittemore and George Francis.

The Woonsocket Rubber Co. and the American Wringer Co. are among the manufacturing concerns co-operating with the social science section of the Fortnightly Club of Woonsocket, Rhode Island, in working for the prevention and cure of tuberculosis among factory employees.

Shippey Brothers, 14 King street, Cheapside, London, have been appointed agents for the sale of the heavy motor "bus tires" of the "sidewire" type manufactured by Morgan & Wright (Detroit, Michigan).

A petition in bankruptcy was filed on April 16 against the E. J. Willis Co. (New York), dealers in automobile supplies. The company have handled large quantities of rubber tires, as did the president, Ernest J. Willis, in business as an individual before forming the company.

Rubber erasers entered at New York by L. & C. Hardtmuth at 3 shillings were advanced by the customs appraisers to 3 shillings 6 pence.

At the annual meeting of shareholders of the Joseph Dixon Crucible Co. (Jersey City, New Jersey), 6,460 of the 7,345 shares being represented, the board of directors was re-elected. The offices were later re-elected as follows: E. F. C. Young, president; John A. Walker, vice president and treasurer; George E. Long, secretary; Judge Joseph D. Bedle, counsel.

An automobile club with 60 members has been organized at Akron, Ohio. Charles C. Goodrich, of The B. F. Goodrich Co., is president.

A recent count showed 1,117 vehicles in New York city to be equipped with the "sidewire" tires of The Firestone Tire and Rubber Co.

AN UNPUNCTURABLE INNER TUBE.

THE Victor Auto Tire Repair Co. has been organized at Passaic, N. J., with \$50,000 capital, to make an "unpuncturable" felt tread inner tube for motor tires, which is being marketed as the "Victor" tube. James Maitland is manager and Samuel W. Hale secretary of the company. The offices are at No. 220 Madison street, Passaic.

FIRST RUBBER TIRE FACTORY AT NEWARK.

THE Ennis-Ruff Tire Co., incorporated under the laws of New York to make and sell the spring tire patented by Frederick A. Ruff, of Detroit, first brought their product before the public



ENNIS-RUFF TIRE.

at the Boston Automobile Show, in March, since which time it has rapidly been winning favor. As indicated in the cut, the novel feature of this tire is the triple layer of highly tempered steel spring located within the tread. The resilience of this tire is referred to as being practically the same as that of other pneumatic tires, while less air pressure is required, and for this reason the liability to blowouts is lessened. The Ennis-Ruff Tire Co.'s offices are located in the new "Auto-Mart" building, Sixty-second street and Fifth avenue, New York. They are establishing a factory for the production of the rubber treads and inner tubes at No. 22 Commercial street, Newark, N. J.

OBITUARY.

MRS. MARY MARVIN GOODRICH, widow of the late Dr. Benjamin F. Goodrich, founder of The B. F. Goodrich Co. (Akron, Ohio), died at her home, in New York city, on April 15. She was born at Jamestown, N. Y., being the daughter of Justice Richard Pratt Marvin, of the New York supreme court, and Isabella Newland Marvin. On November 14, 1869, she was married to Dr. Goodrich, then engaged in business in New York, and in the year following accompanied him to Akron, where he laid the beginnings of the rubber industry in that city. After the death of Dr. Goodrich, in 1888, his widow resided for a few years at Cambridge, Mass., before finally making her home in New York. The burial took place at her native place, Jamestown, N. Y., which was the last resting place of her husband. Mrs. Goodrich is survived by two sons and a daughter—Charles C. Goodrich, of The B. F. Goodrich Co., at Akron; David M. Goodrich, of New York, and Isabella, the wife of John C. Breckinridge, of New York. Richard Pratt Marvin, a brother of Mrs. Goodrich, died in 1906, at which time he was secretary of The B. F. Goodrich Co.

RUBBER FACTORY FOR SALE.

THE receivers of the Electric Rubber Manufacturing Co. will offer, at public sale, on May 3, at 2 P. M., on the premises at Rutherford, N. J., the plant of the company, consisting of three acres of land, with buildings and machinery and other equipment, particularly for the manufacture of rubber tires.

The property for sale embraces a large modern brick factory building, two-story office building; machinery for the manufacture of motor tires (capacity 75 to 100 tires per day) and full line of mechanical rubber goods; 300 H. P. steam engine, electric lighting plant, and in general a complete rubber factory equipment. The location is favorable in all respects. Further details appear in an advertisement in this paper.

The Electric company were reported, at the time of their failure, to have important orders on hand, but lacked capital.

TRADE NEWS NOTES.

HENRY LEACH, for many years proprietor of the Waterbury Rubber Store, at Waterbury, Conn., and one of the oldest business men in the town, has sold his stock and fixtures to The Alling Rubber Co., to be combined with their store at No. 139 Bank street, and will retire from business.

The Plymouth Rubber Co. (Stoughton, Mass.) have increased their capital stock to \$50,000. They have also added to their capacity by erecting new buildings during the past year and putting in additional machinery. Besides proofing for the trade they are making such specialties as red discs, beer tubing and sheet packing.

The Phillips Insulated Wire Co. (Pawtucket, Rhode Island) have voted to petition the state legislature for permission to increase their capital stock from \$1,000,000 to \$2,000,000.

Mr. William Neidner, general manager of the linen fire hose manufacturing plant of Charles Niedner (his father), at Malden, Massachusetts, has been elected an alderman for the city of Malden, after having served for two years as councilman. He has been made chairman of the important committee on public property.

W. D. Allen Manufacturing Co. (Chicago) have become the largest makers of lawn sprinklers in the country and have the largest line of sprinkling devices made by any firm in the world. They have been particularly pleased lately to see the recognition which their sprinklers have received in the eastern states as indicated by their large shipments to Boston.

The Pittsburgh Rubber Supply Co. have completed their first year, and Mr. W. P. Cowell, the manager, reports a highly satisfactory condition of business.

The Standard Underground Cable Co. (Pittsburgh, Pennsylvania) declared a quarterly dividend of 3 per cent., payable on April 10.

The St. Louis Rubber Cement Co. have planned to erect buildings to cost \$6,500 at No. 3046 Lambdin avenue, St. Louis, which will take the place of the premises damaged by fire in February.

A. G. Spalding & Brothers Manufacturing Co., manufacturers of sporting goods and golf balls at Chicopee and Stoughton, Massachusetts, are incorporated under the Massachusetts laws. The business is conducted separately from that of A. G. Spalding & Brothers, of New York, and succeeds the Lamb Manufacturing Co., of Chicopee.

Alexander O. Holroyd, who came to the United States from England in connection with the Dunlop tire interests, being identified with the American Dunlop Tire Co. from its beginning and since with the Dunlop department of the Hartford Rubber Works Co., has gone to Columbus, Ohio, as vice president of the Midgley Manufacturing Co., of which Thomas Midgley, lately president of the Hartford Rubber Works Co., is the head.

Mr. Julius Lehmann, manager of the india-rubber department of George Borgfeldt & Co., American representatives of the Hanover Rubber Co., accompanied by his wife, sailed on the *Kaiser Wilhelm II.* on April 10 for a three months' vacation in Europe.

The Fisk Rubber Co.'s New York branch is expected, by June 1, to be installed in a new building now being constructed for its use at Fifty-fifth street and Broadway. J. W. Bowman has resigned as manager of the New York branch, being succeeded by F. A. Drake.

Mr. Otis R. Cook, who for twelve years was general representative of The B. F. Goodrich Co. and later general western representative of the International Rubber Co., with offices at 518 American Trust building, Cleveland, Ohio, has retired from the latter connection to become general representative of the Firestone Tire and Rubber Co., retaining the offices mentioned above.

TRADE NEWS NOTES.

The Ellis Rubber Co. filed articles of incorporation April 4, 1907, under the laws of Ohio, with \$10,000 capital, to engage in the sale of tires and other rubber goods. They will act as selling agents, and job and deal in all kinds of rubber tires. R. C. Ellis is president and manager, and T. W. Spalding secretary and treasurer. They will not engage in manufacturing for the present, though their charter permits them to do so. Location: No. 510 Sycamore street, Cincinnati.

The Rubber Products Co. (Akron, Ohio) are manufacturing for outside parties a specially light overshoe for ladies' wear, a patented article in which a good trade has been built up. The company have been enlarging their facilities for mold work, providing room for 24 hydraulic presses.

At the annual meeting of the Woonsocket Rubber Co. (Woonsocket, Rhode Island) on April 22, the directors elected were Samuel P. Colt, Walter A. Read, John W. Ellis, James Harris, Walter S. Ballou, Homer E. Sawyer, and John J. Watson, Jr. Colonel Colt was reelected president and general manager and Clarence H. Guild secretary and treasurer.

The Boston Rubber Shoe Co. have a display of their products at the Jamestown Exposition, to celebrate the tercentennial of the founding of the first English colony in America, which was opened formally on April 26.

The New England Rubber Manufacturing Co. (Hyde Park, Massachusetts) are doing a very large and profitable business in the proofing of fabrics of all sorts, including silk. The active head of the company, Mr. A. A. MacLaren, who is both secretary and treasurer, has also recently installed an up-to-date plant for the manufacture of rubber heels and small molded specialties in rubber.

PERSONAL MENTION.

MR. ARTHUR E. FRISWELL, formerly with the Mechanical Fabric Co. (Providence, Rhode Island), and for some years past at the works of David Moseley & Sons, Limited, at Manchester, England, was recently called to the United States by the serious illness of his father at Providence.

Mr. George S. Atwood, secretary of the American Association of Commerce and Trade, with headquarters in Berlin and a membership divided equally between American and non-American firms, arrived in New York on April 9 on a visit the object of which is to bring the association into closer relations with American commercial interests.

Mr. Leonard F. Requa, founder and for a number of years president of the Safety Insulated Wire and Cable Co. (New York), is a director in the Arizona Amalgamated Copper Co., a \$15,000,000 mining company.

The Boston shoe trade, both rubber and leather, will miss George E. B. Putnam, department editor of the *Boot and Shoe Recorder*, but not for long. He has merely gone to Jamaica for a well earned rest. Here's hoping that that trim little island lies quiet while he is there and that he returns soon and much refreshed.

Mr. Lewis D. Parker, some time president of the Hartford Rubber Works Co., has been elected a director in the important hardware and tools manufacturing concern, Billings & Spencer Co. (Hartford, Connecticut), to fill the vacancy caused by the death of Franklin Clark.

Mr. F. H. Burgess, special correspondent of the important London daily, *The Financier and Bullionist*, was in New York recently, whence he started for an 18 months' tour of Mexico, the Central American states, and South America, with a view to reporting, in a series of letters, on the financial, industrial, and commercial conditions and prospects of the different countries. His itinerary embraces the leading rubber ports, including Pará and Manaus, and the rubber interest is on his list of subjects for study.

TO EXPLOIT COLOMBIAN RUBBER.

THE Amazon-Colombian Rubber and Trading Co. filed articles of incorporation under the laws of Maine on April 10, 1907, with an authorized capital of \$7,500,000, of which \$3,000,000 is 7 per cent. preferred stock and \$4,500,000 is common stock. The object is to acquire and work rubber and timber resources controlled under a concession from the republic of Colombia—an estimated area of 47,000 square miles, bounded in general by the Putumayo and Caqueta rivers, the waters of both of which reach the Amazon. The concession carries the exclusive rights of exploitation until 1930, and the right to acquire 80,000 hectares (=197,680 acres) in fee simple, anywhere within the limits of the concession.

During the last four years rubber has been shipped from the district above referred to, in increasingly large amounts, by way of Iquitos. Manifests of such shipments between the dates of December 29, 1904, and November 25, 1906, show 769 tons of rubber consigned for Liverpool and 57 tons for New York, and the later exports have been on a large scale. It is expected that the rubber working and trading organization already on the ground will be continued under the new régime. The rubber gathered hitherto has been of a quality approximating cauchó ball, but described as *Jebe debil* or "weak rubber."

The new company have head offices at No. 1 Wall street, New York. The officers are: President, *Frank Squier*, of the paper trade, president Queens County Trust Co., and recently one of the vendors of the Inambari-Pará Rubber Estates, Limited; vice-president, *Benjamin Briscoe*, president Maxwell-Briscoe Motor Co.; secretary, *John Bidlake*, a former United States consul in Colombia, and general manager of the Home Land and Mining Co.; treasurer, *Julian M. Gerard*, of H. C. Brown & Co., bankers, New York; managing director, *Herman D. Selleck*, secretary Carabaya Rubber Co., operating rubber properties in Peru. The directors are the above, C. P. Collins, president Inca Rubber Co. and Inca Mining Co.; Fidel Cuello, merchant, of Bogota, and Carl H. Fowler, counselor-at-law, of New York.

Colonel John Bidlake, Fidel Cuello and H. D. Selleck, named above, are now in London with a view to promoting the interests of the company. In London is a branch of the important company who have been exploiting the rubber resources of the district involved in the concession.

POPULAR TOILET APPLIANCES.

DEALERS who have taken on the Allen fountain brush have found it a ready seller. While the brush and accompanying outfits have been improved from time to time in efficiency and appearance, the original principle remains: Water applied to the skin in a gentle or strong spray through the bristles. The slow or brisk rub readily opens the pores and clean water is applied directly during the process of massage or friction. A thorough, satisfying, cleansing bath is accomplished rapidly and followed by a delightful, exhilarating, toning effect upon the system.

The Allen fountain brush with portable outfit is used independent of the bathroom, tub or running water, as explained in the company's advertisement. This outfit is greatly appreciated and readily purchased by those not having bathrooms and by travelers, as the outfit is packed in a small box easily carried in grip or suit case.

Effective advertising matter is supplied free of charge to dealers handling these goods.

[The Allen Manufacturing Co., No. 2515 Adams street, Toledo, Ohio.]



ALLEN BATHROOM
OUTFIT IN USE.

Review of the Crude Rubber Market.

THE rubber market has been in a condition during the past month that may best be described as uncertain, unless the language be adopted of one trade report that appeared a fortnight ago, referring to the week then closing as the duller on record. The arrivals have been taken to fill contracts and manufacturers have shown no interest in the lower price scale now prevailing. There was a gradual decline, from the quotations in our last report, until past the middle of the month, when new Islands fine was quoted at \$1.14—a price not before recorded since December, 1904, but it is not known that business was done at these figures. There has been a subsequent increased firmness of the market and quotations to-day are within 1 and 2 cents of prices one month ago.

The Pará rubber crop this year is conceded to be larger than in any former year. Arrivals at Pará up to April 1 (including caucho) were 1,280 tons larger than in the year before at the same date, and the rate has been well maintained since, the estimated total arrivals for April, at the time of our going to press, being 3,050 tons, against 2,500 tons in April, 1906. The following table shows the arrivals in tons for the four last crop years—to December 31, to March 31, to April 30, and the entire crop. If the average rate of arrivals is maintained for May and June, the present crop will aggregate very nearly 36,000 tons and the average seems likely to be exceeded.

PARA ARRIVALS—RUBBER AND CAUCHO—IN TONS.

	1903-04.	1904-05.	1905-06.	1906-07.
To December 31.....	13,470	13,300	14,690	14,720
To March 31.....	25,480	27,210	28,020	29,300
To April 30.....	27,550	29,330	30,520	32,350
To June 30.....	30,580	33,060	34,490	

[a—Partially estimated.]

The market for Centrals and Africans has been of a firmer character throughout the month.

NEW YORK quotations:

PARA.	May 1, '06.	April 1, '07.	April 29.
Islands, fine, new.....	122 @ 123	116 @ 117	115 @ 116
Islands, fine, old.....	none here	none here	none here
Upriver, fine, new.....	126 @ 127	118 @ 119	117 @ 118
Upriver, fine old.....	127 @ 128	121 @ 122	119 @ 120
Islands, coarse, new..	70 @ 71	67 @ 68	67 @ 68
Islands, coarse, old..	none here	none here	none here
Upriver, coarse, new..	91½ @ 92	92 @ 93	91 @ 92
Upriver, coarse, old..	none here	none here	none here
Caucho (Peruvian) sheet	74 @ 75	75½ @ 76	73½ @ 74
Caucho (Peruvian) ball	85 @ 86	86 @ 87	86 @ 87
Ceylon, fine, sheet....		137 @ 138	135 @ 136

AFRICAN.

Sierra Leone, 1st quality	102 @ 103	Lopori ball, prime....	105 @ 110
Massai, red	102 @ 103	Lopori strip, prime....	100 @ 102
Benguella	76 @ 77	Madagascar, pinky....	87 @ 88
Cameroun ball	79 @ 80	Ikelemba	110 @ 112
Accra flake	20 @ 21	Soudan niggers.....	91 @ 92

CENTRALS.

Esmeralda, sausage	86 @ 87	Mexican, scrap	89 @ 90
Guayaquil, strip	73 @ 74	Mexican, slab	66 @ 67
Nicaragua, scrap	85 @ 86	Mangabeira, sheet	59 @ 60
Panama, slab	67 @ 68	Guayule	@ 48

EAST INDIAN.

Assam	94 @ 95	Borneo	49 @ 63
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Late Pará cables quote:

	Per Kilo.	Upriver, fine	Per Kilo.
Islands, fine	\$600	Upriver, coarse	\$800
Islands, coarse	\$3000	Exchange	15¼d.

Last Manaos advices:

Upriver, fine	65700	Upriver, coarse	45400
		Exchange	15 7/32d.

NEW YORK PRICES FOR JANUARY (NEW RUBBER).

	1907.	1906.	1905.
Upriver, fine.....	1.21 @ 1.24	1.23 @ 1.29	1.18 @ 1.25

Upriver, coarse.....	.96 @ .98	.94 @ .97	.90 @ .94
Islands, fine.....	1.17 @ 1.20	1.21 @ 1.26	1.14 @ 1.22
Islands, coarse.....	.71 @ .73	.73 @ .77	.65 @ .71
Cametá .....	.72 @ .74	.74 @ .78	.64 @ .71

NEW YORK RUBBER PRICES FOR FEBRUARY (NEW RUBBER).

	1907.	1906.	1905.
Upriver, fine.....	\$1.19 @ \$1.23	\$1.26 @ \$1.28	\$1.25 @ \$1.29
Upriver, coarse.....	.95 @ .98	.93 @ .95	.93 @ .96
Islands, fine.....	1.17 @ 1.19	1.23 @ 1.25	1.22 @ 1.26
Islands, coarse.....	.69 @ .72	.74 @ .75	.70 @ .75
Cametá .....	.71 @ .73	.75 @ .77	.70 @ .76

NEW YORK PRICES FOR MARCH (NEW RUBBER).

	1907.	1906.	1905.
Upriver fine.....	1.16 @ 1.21	1.25 @ 1.29	1.29 @ 1.34
Upriver coarse.....	.92 @ .96	.93 @ .96	.94 @ 1.00
Islands fine.....	1.14 @ 1.19	1.23 @ 1.25	1.25 @ 1.31
Islands coarse.....	.66 @ .70	.73 @ .75	.75 @ .80
Cametá .....	.71 @ .73	.74 @ .77	.77 @ .82

Statistics of Para Rubber (Excluding Caucho).

	NEW YORK.		Total.	Total.	Total.
	Fine and		1907.	1906.	1905.
	Medium.	Coarse.			
Stocks, February 28....Tons	188	8 =	196	358	136
Arrivals, March	1333	636 =	1969	1415	3148
Aggregating	1521	644 =	2165	1773	3284
Deliveries, March	1416	624 =	2040	1378	2941

Stocks, March 30.....	105	20 =	125	395	343
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	PARA.	ENGLAND.	1907.	1906.	1905.
Stocks, Feb. 28..Tons	485	737	810	449	875
Arrivals, March	4675	2795	3800	1186	866
Aggregating	5160	3532	4610	1635	1741
Deliveries, March ...	4175	3396	3881	825	836
Stocks, March 30....	985	136	729	810	905

World's visible supply, March 30..Tons	3,894	3,269	3,511
Para receipts, July 1 to March 30.....	25,435	24,264	23,256
Para receipts of Caucho, same dates....	3,975	3,705	3,704
Afloat fr. Para to United States, Mar. 30	748	757	829
Afloat from Para to Europe, Mar. 30...	1,226	1,076	1,210

Plantation Rubber From the Far East.

WEEKLY CEYLON EXPORTS.

	Pounds.	Total, 1907.....	Pounds.
January 1 to Feb. 4....	26,418	80,456	
Week ending Feb. 11..	16,744	Same dates, 1906.....	48,058
Week ending Feb. 18..	14,007	Same dates, 1905.....	13,866
Week ending Feb. 25..	10,772	Same dates, 1904.....	11,592
Week ending Mar. 4....	12,515		

Distribution.

Great Britain	57,917	Belgium	1,641
United States	14,410	Australia	440
Germany	6,048		

Rubber Scrap Prices.

NEW YORK quotations—prices paid by consumers for carload lots, per pound—show little change:

Old rubber boots and shoes—domestic.....	105¢ @ 107½¢
Old rubber boots and shoes—foreign.....	93½¢ @ 97½¢
Pneumatic bicycle tires.....	7½¢ @ 7¾¢
Automobile tires	9½¢ @ 10¢
Solid rubber wagon and carriage tires.....	10 @ 10½¢
White trimmed rubber.....	12½¢ @ 12¾¢
Heavy black rubber.....	5¼¢ @ 6¢
Air brake hose.....	4¾¢ @ 5¢
Fire and large hose.....	35¢ @ 3¾¢
Garden hose	2½¢ @ 2¾¢
Matting	1½¢ @ 1¾¢

Paris.

THE business of the late Haymann Lerchenthal, in crude rubber and other raw materials, is being continued by the firm of Poncin, Dusendschön et Cie, at 47 rue Lafitte. The firm includes Messrs. Alfred Poncin and Oscar Dusendschön (the latter of whom has been engaged in the rubber trade at Pará and Manaos), and are correspondents of Heilbut, Symons & Co., of London and Liverpool. The Lerchenthal estate is being liquidated separately by Monsieur Poncin.

Havre.

THE offerings at inscription this date embrace about 112 tons, mostly of French Congo sorts, with several items from Madagascar. Madagascar pinky is estimated at 8.60 francs [=75 cents per pound] and Majunga at 8 francs [=70 cents]. Ceylon and Straits plantation rubber is also included.

RUBBER ARRIVALS AT HAVRE.

DEC. 18.—Steamer <i>Europe</i>	123,121 kilos
JAN. 16.—Steamer <i>Paraguay</i>	167,953 kilos
FEB. 18.—Steamer <i>Europe</i>	99,010 kilos
MAR. 19.—Steamer <i>Paraguay</i>	87,820 kilos

Para.

EXPORTS of crude india-rubber (including cauchó) during January-March, 1907, in kilograms:

Para shippers	5,786,517
From Manaos	7,175,445
From Iquitos, direct	1,050,014
Total	14,017,976

R. O. AHLERS & Co. report [April 1]:

In spite of lower quotations from the home markets, there has been a general good demand for the arrivals at slightly increased prices. The tributaries of the Amazon have now sufficiently filled up to enable all

steamers to go up again and deliver their *arriamentos*, so that the outlook for the new crop does not seem so bad as could be supposed by reports received last month.

IMPORTS FROM PARA AT NEW YORK.

[The Figures Indicate Weight in Pounds.]

MARCH 27.—By the steamer <i>Hubert</i> , from Manaos and Para:					
IMPORTERS.	Fine.	Medium.	Coarse.	Cauchó.	Total.
Poel & Arnold	323,200	74,300	133,200	72,800	603,500
A. T. Morse & Co.	223,900	42,500	81,200	134,200	481,800
General Rubber Co.	104,600	22,500	92,900	42,800	263,100
New York Commercial Co.	146,400	34,100	68,500	6,500	255,500
Hagemeyer & Brunn	22,600	4,100	33,900	.....	60,600
C. P. dos Santos	49,300	9,400	.....	4,300	63,000
Neale & Co.	2,200	1,400	15,900	19,800	39,300
Edmund Reeks & Co.	17,800	3,200	15,900	.....	36,900
Total	890,300	191,500	441,500	280,400	1,803,700

APRIL 5.—By the steamer <i>Horatio</i> , from Manaos and Para:					
Poel & Arnold	300,700	82,500	149,900	88,300	621,400
A. T. Morse & Co.	193,300	62,900	107,800	78,200	442,200
General Rubber Co.	152,000	41,800	192,100	70,800	456,700
Neale & Co.	44,500	8,500	42,100	700	95,800
New York Commercial Co.	28,600	8,200	23,100	19,100	78,900
Hagemeyer & Brunn	29,300	2,600	29,300	400	61,600
Edmund Reeks & Co.	8,600	800	10,900	1,700	22,000
C. P. dos Santos .....	.....	.....	15,200	.....	15,200
Total	757,000	207,300	570,300	259,200	1,793,800

APRIL 16.—By the steamer <i>Maranhense</i> , from Manaos and Para:					
Poel & Arnold	214,600	88,600	76,100	54,900	434,200
General Rubber Co.	65,900	17,100	76,500	135,600	295,100
A. T. Morse & Co.	100,200	37,400	66,000	69,700	273,300
New York Commercial Co.	52,400	18,900	37,900	.....	109,200
C. P. dos Santos	18,100	3,300	10,900	.....	32,300
Neale & Co.	5,700	1,700	22,400	.....	29,800
G. Amsinck & Co.	24,300	.....	4,700	.....	29,000
Hagemeyer & Brunn	5,000	.....	12,500	.....	12,500
Total	492,200	167,000	307,000	260,200	1,226,400

[NOTE.—The *Guangense*, from Pará, was due at New York, April 25, with 715 tons rubber and 100 tons cauchó. The *Benedict*, from Para, is due at New York, May 5, with 500 tons rubber and 70 tons cauchó.]

PARA RUBBER VIA EUROPE.

POUNDS.	
MAR. 26.—By the <i>Pennsylvania</i> =Hamburg:	
General Rubber Co. (Coarse)	22,500
MAR. 29.—By the <i>Georgic</i> =Liverpool:	
Poel & Arnold (Coarse)	25,000
Poel & Arnold (Cauchó)	35,000
New York Commercial Co. (Fine)	11,000
71,000	
APR. 8.—By the <i>Rapallo</i> =Hamburg:	
General Rubber Co. (Fine)	22,500
General Rubber Co. (Coarse)	13,500
36,000	
APR. 12.—By the <i>Majestic</i> =Liverpool:	
Poel & Arnold (Cauchó)	25,000
APR. 13.—By the <i>Mapacho</i> =Mollendo:	
New York Commercial Co. (Fine)	2,500
APR. 13.—By the <i>Compania</i> =Liverpool:	
General Rubber Co. (Coarse)	11,500
APR. 15.—By the <i>St. Louis</i> =London:	
Poel & Arnold (Fine)	13,500
APR. 17.—By the <i>Carmania</i> =Liverpool:	
Poel & Arnold (Fine)	11,000

OTHER ARRIVALS AT NEW YORK.

CENTRALS.	
POUNDS.	
MAR. 25.—By the <i>Panama</i> =Colon:	
Andean Trading Co.	4,500
Mann & Emdon	3,500
Piza Nephews Co.	1,000
George A. Alden & Co.	1,000
10,000	
MAR. 25.—By the <i>Comus</i> =New Orleans:	
A. N. Rotholz	2,000
Manhattan Rubber Mfg. Co.	1,500
G. Amsinck & Co.	1,500
3,000	
MAR. 25.—By the <i>Tennyson</i> =Bahia:	
New York Commercial Co.	13,000
A. D. Hitch & Co.	7,000
American Commerce Co.	7,000
J. H. Rosbach & Bros.	3,000
30,000	
MAR. 26.—By the <i>Prins August Willem</i> =Colombia:	
G. Amsinck & Co.	3,000
Kunhardt & Co.	3,000
I. Brandon & Bros.	2,000
A. Held	2,000
De Lima & Cortes	1,500
Roldan & Van Sickle	500
United Fruit Co.	500
14,500	
MAR. 29.—By the <i>Georgic</i> =Liverpool:	
George A. Alden & Co.	12,000
A. T. Morse & Co.	3,500
15,500	
MAR. 29.—By the <i>Yumuri</i> =Tampico:	
Continental-Mexican Rubber Co.	35,000
Edward Maurer	90,000

CENTRALS—Continued.

New York Commercial Co.	33,000
H. Marquardt & Co.	3,000
181,000	
MAR. 29.—By the <i>Orinoco</i> =Colombia, etc.:	
E. B. Strout	3,500
G. Amsinck & Co.	2,000
Meeke & Co.	1,500
H. S. King & Co.	1,500
Colombian Trading Co.	1,000
Roldan & Van Sickle	1,000
Central American Importing Co.	1,000
J. A. Pauli & Co.	1,000
M. Hecht	500
13,000	
MAR. 30.—By the <i>Graecia</i> =Colon:	
J. A. Pauli & Co.	2,000
E. B. Strout	2,000
Eggers & Heinlein	1,000
Thebaud Bros.	500
A. Held	500
6,000	
MAR. 30.—By the <i>Esperanza</i> =Vera Cruz:	
New York Commercial Co.	3,500
H. Marquardt & Co.	2,000
Isaac Kuhle & Co.	1,000
Harburger & Stack	1,000
E. Steiger & Co.	1,000
8,500	
MAR. 30.—By the <i>El Norte</i> =Galveston:	
Continental-Mexican Rubber Co.	35,000
MAR. 30.—By the <i>Finanza</i> =Colon:	
Dumarest Bros. & Co.	4,000
G. Amsinck & Co.	3,500
A. Santos & Co.	2,500
Hirzel, Feltman & Co.	1,500
Roldan & Van Sickle	1,500
L. Johnson & Co.	1,500
Aramburo Inc.	1,000
American Trading Co.	1,000
Piza Nephews Co.	500
17,000	
APR. 1.—By the <i>Vigilancia</i> =Tampico:	
Edward Maurer	70,000
Continental-Mexican Rubber Co.	35,000
W. C. Coleman Co.	5,000
110,000	
APR. 1.—By the <i>Proteus</i> =New Orleans:	
A. T. Morse & Co.	5,500
E. Steiger & Co.	2,000
A. N. Rotholz	1,000
8,500	
APR. 2.—By the <i>Colon</i> =Colon:	
Hirzel, Feltman & Co.	6,000
L. Johnson & Co.	1,000
I. Brandon & Bros.	500
7,500	
APR. 4.—By the <i>Coronia</i> =Liverpool:	
George A. Alden & Co.	8,000
APR. 4.—By the <i>Titian</i> =Bahia:	
A. D. Hitch & Co.	18,000
A. Hirsch & Co.	5,000
Thomsen & Co.	1,500
24,500	
APR. 6.—By the <i>Mexico</i> =Frontera:	
New York Commercial Co.	9,000
Harburger & Stack	7,000

CENTRALS—Continued.

E. Steiger & Co.	4,500
W. L. Wadleigh	2,500
Thebaud Bros.	1,500
H. Marquardt & Co.	1,000
Frederick Probst & Co.	1,000
26,500	
APR. 8.—By the <i>Sarnia</i> =Colombia:	
J. A. Pauli & Co.	4,000
Seauz & Co.	3,000
Schulte & Goschen	1,500
A. D. Straus & Co.	1,000
I. Brandon & Bros.	1,000
10,500	
APR. 8.—By the <i>Advance</i> =Colon:	
Hirzel, Feltman & Co.	3,500
Andean Trading Co.	2,000
Eggers & Heinlein	2,000
Bartling & De Leon	500
8,000	
APR. 9.—By the <i>Hausent</i> =Bahia:	
New York Commercial Co.	5,000
Poel & Arnold	5,000
A. Hirsch & Co.	5,000
15,000	
APR. 9.—By the <i>Prins Joachim</i> =Colombia:	
Schloss Bros. & Co.	5,500
J. A. Pauli & Co.	2,500
Kunhardt & Co.	2,500
I. Brandon & Bros.	2,000
Seauz & Co.	1,500
D. A. De Lima & Co.	1,000
American Trading Co.	1,000
Escobao & Gorgorza	1,000
G. Amsinck & Co.	1,000
Graham, Hinkley & Co.	500
18,500	
APR. 11.—By the <i>Armenian</i> =Liverpool:	
George A. Alden & Co.	11,000
APR. 12.—By the <i>Matanzas</i> =Tampico:	
Continental-Mexican Rubber Co.	125,000
New York Commercial Co.	75,000
Remsch & Heide	45,000
Edward Maurer	25,000
W. C. Coleman & Co.	11,000
Poel & Arnold	2,500
H. Marquardt & Co.	3,500
Harburger & Stack	1,000
288,000	
APR. 12.—By the <i>Atrato</i> =Colon:	
G. Amsinck & Co.	3,000
Secke & Co.	2,000
Wessels, Kulemkamp Co.	1,500
Andreas & Co.	1,000
Roldan & Van Sickle	3,000
J. A. Pauli & Co.	1,000
Eggers & Heinlein	1,000
H. Marquardt & Co.	500
A. S. Lascellas & Co.	500
11,500	
APR. 13.—By the <i>Monterey</i> =Vera Cruz:	
H. Marquardt & Co.	1,000
New York Commercial Co.	1,000
Harburger & Stack	1,000
3,000	
APR. 13.—By the <i>Panama</i> =Colon:	
Hirzel, Feltman & Co.	9,000

CENTRALS—Continued.

Roldan & Van Sichel.....	3,000
Dumarest Bros. Co.....	3,500
Mann & Emdon.....	4,500
Silva, Bussenus & Co.....	2,500
José Julia & Co.....	2,000
Andreas & Co.....	1,500
G. Amsinck & Co.....	1,000
Frame & Co.....	1,000
Wessels, Kulekamp Co.....	500
Piza Nephews Co.....	500
Andean Trading Co.....	500
APR. 15.—By the <i>Proteus</i> =New Orleans:	
A. T. Morse & Co.....	5,000
Manhattan Rubber Mfg. Co.....	3,000
New York Commercial Co.....	2,000
Eggers & Heinlein.....	2,500
A. N. Rotholz.....	1,000
APR. 17.—By the <i>Siberia</i> =Columbia:	
Kunhardt & Co.....	3,000
D. Mosely Sons.....	3,000
Brunner & Moller.....	1,500
G. Amsinck & Co.....	2,000
L. Brandon & Bros.....	1,000
United Fruit Co.....	500
Luzarte & Whitney.....	500
Graham, Hinkley & Co.....	500
APR. 17.—By the <i>Toronto</i> =Hamburg:	
A. T. Morse & Co.....	56,000
APR. 17.—By the <i>El Paso</i> =Galveston:	
Continental-Mexican Rubber Co.....	30,000
APR. 18.—By the <i>Prins Ethel Frederick</i> =Colon:	
A. M. Capen's Sons.....	2,500
A. Santos & Co.....	2,000
A. Rosenthal's Sons.....	1,500
De Lima & Cortessa.....	1,000
APR. 19.—By the <i>Merida</i> =Frontera:	
H. Marquardt & Co.....	4,500
New York Commercial Co.....	4,500
Harburger & Stack.....	6,500
E. Steiger & Co.....	4,500
Thebaud Brothers.....	2,500
Graham, Hinkley & Co.....	1,000
American Trading Co.....	1,000
APR. 19.—By the <i>Alliance</i> =Colon:	
G. Amsinck & Co.....	2,500
Piza Nephews Co.....	6,000
APR. 22.—By the <i>Prins August Willem</i> =Columbia:	
I. Brandon & Bros.....	2,000
D. A. De Lima & Co.....	1,500
G. & J. Fajardo.....	1,000
APR. 22.—By the <i>Byron</i> =Bahia:	
J. H. Rossbach & Bros.....	11,000
Poel & Arnold.....	15,000
New York Commercial Co.....	7,000
APR. 23.—By the <i>Financé</i> =Colon:	
Hirzel, Feltman & Co.....	6,500
L. Johnson & Co.....	2,000
APR. 23.—By the <i>Memus</i> =New Orleans:	
A. T. Morse & Co.....	5,000
G. Amsinck & Co.....	5,000
A. N. Rotholz.....	2,000
Manhattan Rubber Mfg. Co.....	1,000

AFRICANS.

MAR. 27.—By the <i>Mesaba</i> =London:	
Robinson & Stiles.....	4,500
Poel & Arnold.....	2,000
MAR. 27.—By the <i>Zealand</i> =Antwerp:	
A. T. Morse & Co.....	7,000
Joseph Cantor.....	5,000
W. L. Clough Co.....	2,000
MAR. 28.—By the <i>Teutonic</i> =Liverpool:	
Poel & Arnold.....	7,000
W. L. Gough Co.....	2,500
MAR. 29.—By the <i>Georgic</i> =Liverpool:	
General Rubber Co.....	100,000
George A. Alden & Co.....	67,000
Poel & Arnold.....	34,000
Henry A. Gould Co.....	9,000
APR. 1.—By the <i>Minnetonka</i> =London:	
General Rubber Co.....	20,000
APR. 1.—By the <i>Lucania</i> =Liverpool:	
General Rubber Co.....	13,500
APR. 1.—By the <i>Lorraine</i> =Havre:	
A. T. Morse & Co.....	11,500
Poel & Arnold.....	9,000

AFRICANS—Continued.

APR. 1.—By the <i>Waldersee</i> =Hamburg:	
A. T. Morse & Co.....	9,000
APR. 2.—By the <i>Kroonland</i> =Antwerp:	
Poel & Arnold.....	11,000
APR. 3.—By the <i>Cevic</i> =Liverpool:	
General Rubber Co.....	45,000
A. T. Morse & Co.....	7,000
APR. 4.—By the <i>Caronia</i> =Liverpool:	
General Rubber Co.....	135,000
George A. Alden & Co.....	22,500
A. W. Brunn Co.....	4,500
W. L. Gough & Co.....	5,500
A. T. Morse & Co.....	4,500
APR. 5.—By the <i>Baltic</i> =Liverpool:	
George A. Alden & Co.....	19,000
Livesey & Co.....	11,500
A. W. Brunn & Co.....	2,500
APR. 8.—By the <i>New York</i> =London:	
General Rubber Co.....	120,000
George A. Alden & Co.....	5,000
APR. 8.—By the <i>Rapallo</i> =Hamburg:	
George A. Alden & Co.....	67,000
Poel & Arnold.....	14,000
APR. 11.—By the <i>Armenian</i> =Liverpool:	
General Rubber Co.....	78,000
George A. Alden & Co.....	15,000
W. L. Gough & Co.....	11,000
APR. 12.—By the <i>Vaderland</i> =Antwerp:	
General Rubber Co.....	27,000
A. T. Morse & Co.....	15,000
Joseph Cantor.....	7,000
Raw Products Co.....	4,500
APR. 13.—By the <i>Campania</i> =Liverpool:	
General Rubber Co.....	45,000
A. T. Morse & Co.....	15,000
Livesey & Co.....	11,500
APR. 13.—By the <i>Savoie</i> =Havre:	
A. T. Morse & Co.....	11,500
APR. 15.—By the <i>Cedric</i> =Liverpool:	
George A. Alden & Co.....	15,000
A. T. Morse & Co.....	5,000
APR. 16.—By the <i>Minnehaha</i> =London:	
General Rubber Co.....	9,000
Boel & Arnold.....	2,500
APR. 16.—By the <i>Finland</i> =Antwerp:	
General Rubber Co.....	70,000
George A. Alden & Co.....	2,000
APR. 17.—By the <i>Carmania</i> =Liverpool:	
General Rubber Co.....	22,500
Poel & Arnold.....	9,000
A. T. Morse & Co.....	7,000
George A. Alden & Co.....	5,500
APR. 17.—By the <i>Toronto</i> =Hamburg:	
A. T. Morse & Co.....	11,000
APR. 18.—By the <i>Oceanic</i> =Liverpool:	
General Rubber Co.....	36,000
George A. Alden & Co.....	20,000

EAST INDIAN.

MAR. 25.—By the <i>Afghan Prince</i> =Singapore:	
George A. Alden & Co.....	15,000
W. L. Gough & Co.....	30,000
Joseph Cantor.....	5,000
A. T. Morse & Co.....	5,000
MAR. 25.—By the <i>Nubia</i> =Singapore:	
Heabler & Co.....	15,000
A. T. Morse & Co.....	20,000
A. W. Brunn Co.....	7,000
For Boston.....	2,500
APR. 1.—By the <i>Minnetonka</i> =London:	
Robinson & Stiles.....	13,500
General Rubber Co.....	13,500
George A. Alden & Co.....	3,000
APR. 1.—By the <i>Oriel</i> =Colombo:	
A. T. Morse & Co.....	5,500
APR. 9.—By the <i>Satsuma</i> =Singapore:	
Poel & Arnold.....	30,000
Joseph Cantor.....	11,000
A. W. Brunn Co.....	15,000
W. L. Gough Co.....	13,500
APR. 13.—By the <i>Koranna</i> =Colombo:	
A. T. Morse & Co.....	15,000

EAST INDIAN—Continued.

APR. 16.—By the <i>Minnehaha</i> =London:	
General Rubber Co.....	*15,000
* Denotes Plantation Grades (balance Assam, Borneo and Java).	
GUTTA-JELUTONG.	
POUNDS.	
MAR. 25.—By the <i>Afghan Prince</i> =Singapore:	
George A. Alden & Co.....	350,000
W. L. Gough & Co.....	225,000
H. Pauli & Co.....	90,000
Heabler & Co.....	65,000
MAR. 25.—By the <i>Nubia</i> =Singapore:	
H. Pauli & Co.....	180,000
A. W. Brunn Co.....	50,000
Heabler & Co.....	20,000
A. T. Morse & Co.....	7,000
APR. 9.—By the <i>Satsuma</i> =Singapore:	
George A. Alden & Co.....	425,000
Heabler & Co.....	300,000
L. Littlejohn & Co.....	30,000
H. Pauli & Co.....	90,000
J. W. Phyfe & Co.....	50,000
APR. 10.—By the <i>Sikh</i> =Singapore:	
George A. Alden & Co.....	125,000
Heabler & Co.....	25,000
APR. 19.—By the <i>Victorian</i> =Liverpool:	
Heabler & Co.....	45,000
APR. 17.—By the <i>Amsterdam</i> =Rotterdam:	
George A. Alden & Co.....	100,000
A. T. Morse & Co.....	50,000

GUTTA-PERCHA.

APR. 8.—By the <i>Rapallo</i> =Hamburg:	
Robert Soltan Co.....	7,500
BALATA.	
APR. 5.—By the <i>Grenada</i> =Trinidad:	
G. Amsinck & Co.....	1,000
Frame & Co.....	1,000
Graham, Hinkley & Co.....	1,000
APR. 8.—By the <i>Rapallo</i> =Hamburg:	
American Hard Rubber Co.....	10,000
APR. 10.—By the <i>Manao</i> =Demerara:	
Frame & Co.....	1,500
George A. Alden & Co.....	1,000
APR. 19.—By the <i>Prins Willem</i> =Trinidad:	
Thebaud Brothers.....	11,000
Frame & Co.....	1,000
G. Amsinck & Co.....	2,500

CUSTOM HOUSE STATISTICS.

PORT OF NEW YORK—MARCH.		
Imports:	Pounds.	Value.
India-rubber.....	8,654,231	\$6,609,199
Balata.....	30,600	11,511
Gutta-percha.....	13,262	4,783
Gutta-jelutong (Pontianak).....	2,192,864	88,072
Total.....	10,890,957	\$6,713,565
Exports:	Pounds.	Value.
India-rubber.....	155,635	\$112,862
Balata.....	5,810	3,488
Reclaimed rubber.....	64,743	9,000
Rubber Scrap imported.....	131,931	\$135,519
Rubber Scrap exported.....	11,034	519

BOSTON ARRIVALS.

POUNDS.	
MAR. 4.—By the <i>Ivernica</i> =Liverpool:	
Poel & Arnold—Centrals.....	7,510
MAR. 13.—By the <i>Michigan</i> =Liverpool:	
George A. Alden & Co.—Africans.....	33,843
Poel & Arnold—Africans.....	49,086
MAR. 18.—By the <i>Afghan Prince</i> =Singapore:	
George A. Alden & Co.—East Indian.....	1,181
MAR. 20.—By the <i>Sachem</i> =Liverpool:	
George A. Alden & Co.—Africans.....	22,649
MAR. 26.—By the <i>Cymric</i> =Liverpool:	
Poel & Arnold—Africans.....	4,734
Total.....	119,005
Value, \$84,345.	

EXPORTS OF INDIA-RUBBER FROM PARA (IN KILOGRAMS).

MONTHS.	UNITED STATES.				EUROPE.				TOTAL
	Fine.	Medium.	Coarse.	Total.	Fine.	Medium.	Coarse.	Total.	
January.....	850,678	197,179	605,168	46,187	1,699,212	824,310	97,095	253,622	3,149,667
February.....	1,404,669	304,751	738,457	297,993	2,745,870	1,286,917	163,605	485,527	5,610,075
March.....	1,085,429	288,328	712,124	338,800	2,424,681	1,423,233	159,551	406,168	5,258,234
Total.....	3,340,776	790,258	2,055,749	682,980	6,869,763	3,534,460	420,251	1,205,317	14,017,976



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Liverpool.

WILLIAM WRIGHT & Co. report [April 2]:

Fine Para.—The demand at the beginning of the month was fairly good, but latterly, with the heavy receipts and monetary uneasiness, market buyers have withdrawn from active operations, and prices are 1½d. to 2d. per pound lower. America has been quiet, but it is expected to reënter the market shortly, so that the present moment seems a favorable one for manufacturers to operate.

EDMUND SCHLUTER & Co. report [March 31]:

The market during March has again been comparatively quiet, with a further decline both in Brazil and in the home markets, owing to the large receipts at Amazon ports. There is no doubt rather a large supply of rubber at the moment, which if pressed for sale might not find buyers except at a further slight concession.

WORLD'S VISIBLE SUPPLY OF PARA, MARCH 31.

	1907.	1906.	1905.	1904.	1903.	1902.
Tons	5360	4680	4385	2086	4995	5958
Prices, hard fine. 4/11½	5/5	5/6	4/8½	3/9¼	3/1¼	

LIVERPOOL STOCKS OF AFRICAN RUBBER, MARCH 31.

1907.....	373	1904.....	402	1901.....	862
1906.....	344	1903.....	387	1900.....	663
1905.....	304	1902.....	513	1899.....	422

OFFICIAL STATISTICS OF RUBBER (IN POUNDS).

UNITED STATES.

MONTHS.	IMPORTS.	EXPORTS.	NET IMPORTS.
February, 1907.....	8,437,537	379,719	8,057,818
January	6,473,039	292,892	6,180,147
Two months, 1907	14,910,576	672,611	14,237,965
Two months, 1906	13,148,240	687,488	12,460,752
Two months, 1905	17,358,964	350,856	17,008,108

GERMANY.

MONTHS.	IMPORTS.	EXPORTS.	NET IMPORTS.
February, 1907.....	2,452,120	1,270,720	1,181,400
January	2,930,620	1,419,880	1,510,740
Two months, 1907	5,382,740	2,690,600	2,692,140
Two months, 1906	8,955,080	2,666,180	6,288,900
Two months, 1905	7,231,180	2,597,980	4,633,200

FRANCE.*

MONTHS.	IMPORTS.	EXPORTS.	NET IMPORTS.
February, 1907.....	.....	.....	.....
January	1,583,560	1,049,840	533,720
Two months, 1907	.....	.....	.....
Two months, 1906	4,986,520	2,476,320	2,510,200
Two months, 1905	4,552,460	1,946,780	2,605,680

BELGIUM.†

MONTHS.	IMPORTS.	EXPORTS.	NET IMPORTS.
January	1,259,335	904,725	354,610
February, 1907	2,060,425	888,120	1,172,296
Two months, 1907	3,319,760	1,792,854	1,526,906
Two months, 1906	3,313,189	1,521,091	1,792,098
Two months, 1905	3,110,606	1,896,239	1,214,367

GREAT BRITAIN.

MONTHS.	IMPORTS.	EXPORTS.	NET IMPORTS.
February, 1907.....	5,965,680	2,686,544	3,279,136
January	5,867,568	3,401,328	2,466,240
Two months, 1907	11,833,248	6,087,872	5,745,376
Two months, 1906	10,906,272	6,156,192	4,840,080
Two months, 1905	10,086,496	6,603,976	3,482,520

ITALY.

MONTHS.	IMPORTS.	EXPORTS.	NET IMPORTS.
December, 1906.....	217,360	32,780	184,580
January-November	2,363,460	369,160	1,994,300
Twelve months, 1906	2,580,820	401,940	2,178,880
Twelve months, 1905	1,687,180	260,260	1,426,920
Twelve months, 1904	1,471,360	140,580	1,330,780

AUSTRIA-HUNGARY.

MONTHS.	IMPORTS.	EXPORTS.	NET IMPORTS.
December, 1906.....	425,920	71,720	354,200
January-November	3,768,600	794,360	2,974,240
Twelve months, 1906	4,194,520	866,080	3,328,440
Twelve months, 1905	3,015,540	45,320	2,970,220
Twelve months, 1904	2,929,520	15,620	2,913,900

NOTE.—German statistics before Jan. 1, 1906, include Gutta-percha, Balata, old (waste) rubber. British figures include old rubber. French, Austrian and Italian figures include Gutta-percha. The exports from the United States embrace the supplies for Canadian consumption.

* General Commerce.

† Special Commerce.

THE Hodgman Rubber Co. (New York) are distributing some attractive little folders announcing their line of "Sunset" rubber goods.

Le Caoutchouc & La Gutta-Percha

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Representative---CH. DIEN

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The Chief of a Botanical and Scientific Department who bought a large quantity of Para and Castilloa seed from last two crops, writes, 19th November, 1906: "We may however want a large quantity of seeds next year, both of Castilloa and Para. I shall be obliged if you will quote me your lowest possible price for both Para and Castilloa in quantities of 250,000, 500,000, 750,000 and 1,000,000."

The Director of a Govt. Experiment Station, Honolulu, writes, December 13th, 1906: "Tours of October 15th at hand; the 22 packages Castilloa Elastica seed came about three weeks ago, and are of good quality, nearly all having germinated."

Special offer of seeds and stumps, with circulars, on view at the office of this paper and post free on application.

Seeds of celebrated Caravonica and Spence Cotton. For green manuring, Crotalaria Striata, Vigna, Groundnuts, etc. Price on application. See further particulars in our advertisement in this paper, page 41.

Telegraphic Address: J. P. WILLIAM & BROS.,
William, Henaratgoda, Ceylon. Tropical Seed Merchants,
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Also private codes.

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Gutta Percha & Rubber Mfg. Co., N. Y.
The Gutta Percha & Rubber Mfg. Co.
of Toronto, Ltd.
Home Rubber Co., Trenton, N. J.
National India Rubber Co., Bristol, E. I.

RUBBER BUYERS' DIRECTORY—Continued.

Carriage Mats.—Continued.

N. J. Car Spring & Rubber Co., Jersey City, N. J.
Peerless Rubber Mfg. Co., New York.
Revere Rubber Co., Boston, Mass.
Voorhees Rubber Mfg. Co., Jersey City.

Cord (Pure Rubber).

Acme Rubber Mfg. Co., Trenton.
Boston Belting Co., Boston-New York.
Boston Woven Hose & Rubber Co., Cleveland, O.
Continental Rubber Works, Erie, Pa.
Davol Rubber Co., Providence, R. I.
Electric Hose & Rubber Co., Wilmington, Del.
Empire Rubber Mfg. Co., Trenton, N. J.
B. F. Goodrich Co., Akron, O.
Gutta Percha & Rubber Mfg. Co., N. Y.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Republic Rubber Co., Youngstown, O.
Revere Rubber Co., Boston-New York.
Voorhees Rubber Mfg. Co., Jersey City.

Deckle Straps.

Boston Belting Co., Boston.
Canadian Rubber Co. of Montreal.
B. F. Goodrich Co., Akron, O.
Mechanical Rubber Co., Chicago.
New York Belting & Packing Co., N. Y.
Republic Rubber Co., Youngstown, O.
Revere Rubber Co., Boston-New York.

Door Springs.

Hodgman Rubber Co., New York.

Dredging Sleeves.

Acme Rubber Mfg. Co., Trenton.
Boston Belting Co., Boston-New York.
Boston Woven Hose & Rubber Co., Cleveland, O.
Continental Rubber Works, Erie, Pa.
B. F. Goodrich Co., Akron, O.
Gutta Percha & Rubber Mfg. Co., N. Y.
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Home Rubber Co., Trenton, N. J.
N. J. Car Spring & Rubber Co., Jersey City.
New York Belting & Packing Co., N. Y.
Republic Rubber Co., Youngstown, O.
Revere Rubber Co., Boston, Mass.

Force Cups.

The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Hodgman Rubber Co., New York.
National India Rubber Co., Bristol, R. I.

Fruit Jar Rings.

Acme Rubber Mfg. Co., Trenton.
Boston Woven Hose & Rubber Co., Cleveland, O.
Continental Rubber Works, Erie, Pa.
B. F. Goodrich Co., Akron, O.
Empire Rubber Mfg. Co., Trenton, N. J.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Manhattan Rubber Mfg. Co., New York.
Republic Rubber Co., Youngstown, O.
New York Belting & Packing Co., N. Y.

Fuller Balls.

Continental Rubber Works, Erie, Pa.
B. F. Goodrich Co., Akron, O.
Jenkins Bros., New York.
National India Rubber Co., Bristol, R. I.
N. J. Car Spring & Rubber Co., Jersey City.
New York Belting & Packing Co., N. Y.
Peerless Rubber Mfg. Co., New York.
Republic Rubber Co., Youngstown, O.

Gage Glass Washers.

Boston Belting Co., Boston, Mass.
Canadian Rubber Co. of Montreal.
Cleveland Rubber Co., Cleveland, O.
Continental Rubber Works, Erie, Pa.
Electric Hose & Rubber Co., Wilmington, Del.
Empire Rubber Mfg. Co., Trenton, N. J.
B. F. Goodrich Co., Akron, O.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Home Rubber Co., Trenton, N. J.
Jenkins Bros., New York.
Manhattan Rubber Mfg. Co., New York.
Mechanical Rubber Co., Chicago, Ill.
National India Rubber Co., Bristol, R. I.
N. J. Car Spring & Rubber Co., Jersey City, N. J.
New York Belting & Packing Co., N. Y.
New York Rubber Co., New York.

Gage Glass Washers.—Continued.

Revere Rubber Co., Boston, Mass.
Jos. Stokes Rubber Co., Trenton, N. J.
Voorhees Rubber Mfg. Co., Jersey City, N. J.

Gas-Bags (Rubber).

Canadian Rubber Co. of Montreal.
Cleveland Rubber Co., Cleveland, O.
Davol Rubber Co., Providence, R. I.
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National India Rubber Co., Bristol, R. I.
Peerless Rubber Mfg. Co., New York.
Tyrer Rubber Co., Andover, Mass.
Voorhees Rubber Mfg. Co., Jersey City.

Gasket Tubing.

Canadian Rubber Co. of Montreal.
Continental Rubber Works, Erie, Pa.
B. F. Goodrich Co., Akron, O.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Jenkins Bros., New York.
National India Rubber Co., Bristol, R. I.
New Jersey Car Spring & Rubber Co., Revere Rubber Co., Boston.

Grain Drill Tubes.

Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.

Hat Bags.

Boston Belting Co., Boston.
Canadian Rubber Co. of Montreal.
Continental Rubber Works, Erie, Pa.
B. F. Goodrich Co., Akron, O.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Co., New York.
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Mechanical Rubber Co., Chicago.
N. J. Car Spring & Rubber Co., Jersey City, N. J.
New York Belting & Packing Co., N. Y.
New York Rubber Co., New York.
Peerless Rubber Mfg. Co., New York.
Republic Rubber Co., Youngstown, O.
Revere Rubber Co., Boston.

Horse Shoe Pads.

Canadian Rubber Co. of Montreal.
Continental Rubber Works, Erie, Pa.
Home Rubber Co., Trenton, N. J.
Peerless Rubber Mfg. Co., New York.
Plymouth Rubber Co., Stoughton, Mass.
Revere Rubber Co., Boston-New York.
Voorhees Rubber Mfg. Co., Jersey City.

Hose—Wire Wound.

Acme Rubber Mfg. Co., Trenton.
Boston Belting Co., Boston-New York.
Boston Woven Hose & Rubber Co., Cleveland, O.
Canadian Rubber Co. of Montreal.
Continental Rubber Works, Erie, Pa.
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Peerless Rubber Mfg. Co., New York.
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Revere Rubber Co., Boston-New York.
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Boston Woven Hose & Rubber Co., Empire Rubber Mfg. Co., Trenton, N. J.
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B. F. Goodrich Co., Akron, O.
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Peerless Rubber Mfg. Co., New York.
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Empire Rubber Mfg. Co., Trenton, N. J.
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Electric Hose & Rubber Co., Wilmington, Del.
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Gutta Percha & Rubber Mfg. Co., N. Y.
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Boston Woven Hose & Rubber Co., William Yerdon, Fort Plain, N. Y.

Lawn-Hose Supporters.

C. J. Bailey & Co., Boston.

Lawn Sprinklers.

W. D. Allen Mfg. Co., Chicago.
Boston Woven Hose & Rubber Co., Canadian Rubber Co. of Montreal.

Mallets (Rubber).

Boston Belting Co., Boston-New York.
Continental Rubber Works, Erie, Pa.
B. F. Goodrich Co., Akron, O.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
National India Rubber Co., Bristol, R. I.
New York Belting & Packing Co., N. Y.
Peerless Rubber Mfg. Co., New York.
Revere Rubber Co., Boston-New York.

Mould Work.

(See Mechanical Rubber Goods.)
H. O. Canfield Co., Bridgeport, Ct.
Continental Rubber Works, Erie, Pa.
Davidson Rubber Co., Boston.
Davol Rubber Co., Providence, R. I.
Faultless Rubber Co., Akron, O.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Hodgman Rubber Co., New York.
La Crosse (Wis.) Rubber Mills Co.
Laurel Rubber Co., Garfield, N. J.
Massachusetts Chemical Co., Walpole, Mass.
Mattson Rubber Co., New York.
Milford Rubber Works, Milford, Ill.
Mittell Rubber Co., Akron, O.
Plymouth Rubber Co., Stoughton, Mass.
Tyrer Rubber Co., Andover, Mass.
Western Rubber Works, Goshen, Ind.

Oil Well Supplies.

Boston Belting Co., Boston-New York.
Boston Woven Hose & Rubber Co., Continental Rubber Works, Erie, Pa.
B. F. Goodrich Co., Akron, O.
Gutta Percha & Rubber Mfg. Co., N. Y.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Home Rubber Co., Trenton, N. J.
Lake Shore Rubber Co., Erie, Pa.
N. J. Car Spring & Rubber Co., Jersey City.
New York Belting & Packing Co., N. Y.
Peerless Rubber Mfg. Co., New York.

Oil Well Supplies.—Continued.

Republic Rubber Co., Youngstown, O.
Revere Rubber Co., Boston-Pittsburgh.
Voorhees Rubber Mfg. Co., Jersey City.

Packing.

Alfred Calmon, Ltd., London.
Jenkins Bros., New York.
New Jersey Car Spring & Rubber Co.
Voorhees Rubber Mfg. Co., Jersey City.

Paper Machine Rollers.

Boston Belting Co., Boston-New York.
B. F. Goodrich Co., Akron, O.
Gutta Percha & Rubber Mfg. Co., N. Y.
New York Belting & Packing Co., N. Y.
Peerless Rubber Mfg. Co., New York.
Republic Rubber Co., Youngstown, O.
Revere Rubber Co., Boston-New York.
Voorhees Rubber Mfg. Co., Jersey City.

Plumbers' Supplies.

Canadian Rubber Co. of Montreal.
H. O. Canfield Co., Bridgeport, Ct.
Continental Rubber Works, Erie, Pa.
B. F. Goodrich Co., Akron, O.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Republic Rubber Co., Youngstown, O.
Western Rubber Works, Goshen, Ind.

Pump Valves.

(See Mechanical Rubber Goods.)
Continental Rubber Works, Erie, Pa.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Jenkins Bros., New York.
New York Belting & Packing Co., N. Y.
Revere Rubber Co., Boston, Mass.
Western Rubber Works, Goshen, Ind.

Rollers—Rubber Covered.

Boston Belting Co., Boston.
Canadian Rubber Co. of Montreal.
Cleveland Rubber Co., Cleveland, O.
Continental Rubber Works, Erie, Pa.
Empire Rubber Mfg. Co., Trenton, N. J.
B. F. Goodrich Co., Akron, O.
Gutta Percha & Rubber Mfg. Co., N. Y.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Co., New York.
Mechanical Rubber Co., Chicago.
N. J. Car Spring & Rubber Co., Jersey City, N. J.
New York Belting & Packing Co., N. Y.
Peerless Rubber Mfg. Co., New York.
Plymouth Rubber Co., Stoughton, Mass.
Republic Rubber Co., Youngstown, O.
Revere Rubber Co., Boston-New York.

Sewing Machine Rubbers.

Continental Rubber Works, Erie, Pa.
B. F. Goodrich Co., Akron, O.

Springs—Rubber.

Acme Rubber Mfg. Co., Trenton.
Boston Belting Co., Boston-New York.
Canadian Rubber Co. of Montreal.
Continental Rubber Works, Erie, Pa.
B. F. Goodrich Co., Akron, O.
Gutta Percha & Rubber Mfg. Co., N. Y.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
National India Rubber Co., Bristol, R. I.
N. J. Car Spring & Rubber Co., Jersey City.
New York Belting & Packing Co., N. Y.
Peerless Rubber Mfg. Co., New York.
Plymouth Rubber Co., Stoughton, Mass.
Republic Rubber Co., Youngstown, O.
Revere Rubber Co., Boston-New York.
Voorhees Rubber Mfg. Co., Jersey City.

Stair Treads.

Acme Rubber Mfg. Co., Trenton.
Boston Belting Co., Boston-New York.
Boston Woven Hose & Rubber Co., Canadian Rubber Co. of Montreal.
Cleveland Rubber Co., Cleveland, O.
Continental Rubber Works, Erie, Pa.
Empire Rubber Mfg. Co., Trenton, N. J.
B. F. Goodrich Co., Akron, O.
Gutta Percha & Rubber Mfg. Co., N. Y.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Co., New York.
National India Rubber Co., Bristol, R. I.
N. J. Car Spring & Rubber Co., Jersey City, N. J.
New York Belting & Packing Co., N. Y.
New York Rubber Co., New York.
Peerless Rubber Mfg. Co., New York.
Republic Rubber Co., Youngstown, O.
Revere Rubber Co., Boston-New York.
Voorhees Rubber Mfg. Co., Jersey City.

RUBBER BUYERS' DIRECTORY—Continued.

Thread.

B. F. Goodrich Co., Akron, O.
Mechanical Fabric Co., Providence, R. I.
Revere Rubber Co., Boston.

Tiling.

Canadian Rubber Co., of Montreal, Ltd.
Continental Rubber Works, Erie, Pa.
B. F. Goodrich Co., Akron, O.
Gutta Percha & Rubber Mfg. Co., N. Y.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
N. J. Car Spring & Rubber Co., Jersey City.

New York Belting & Packing Co., N. Y.
Peerless Rubber Mfg. Co., New York.
Republic Rubber Co., Youngstown, O.
Voorhees Rubber Mfg. Co., Jersey City.

Tubing.

(See Mechanical Rubber Goods.)
American Hard Rubber Co., New York.
Continental Rubber Works, Erie, Pa.
Davidson Rubber Co., Boston.
Daval Rubber Co., Providence, R. I.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Laurel Rubber Co., Garfield, N. J.
Plymouth Rubber Co., Stoughton, Mass.
New Jersey Car Spring & Rubber Co.
New York Belting & Packing Co., N. Y.
Tyer Rubber Co., Andover, Mass.

Valve Balls.

Boston Belting Co., Boston.
Cleveland Rubber Co., Cleveland, O.
Continental Rubber Works, Erie, Pa.
B. F. Goodrich Co., Akron, O.
Jenkins Bros., New York.
Manhattan Rubber Mfg. Co., New York.
Mechanical Rubber Co., Chicago.
National India Rubber Co., Bristol, R. I.
New York Belting & Packing Co., N. Y.
New York Rubber Co., New York.
Peerless Rubber Mfg. Co., New York.
Republic Rubber Co., Youngstown, O.
Revere Rubber Co., Boston.

Valve Discs.

American Hard Rubber Co., New York.
Boston Belting Co., Boston-New York.
Continental Rubber Works, Erie, Pa.
B. F. Goodrich Co., Akron, O.
Jenkins Bros., New York.
New York Belting & Packing Co., N. Y.
Peerless Rubber Mfg. Co., New York.
Republic Rubber Co., Youngstown, O.
Western Rubber Works, Goshen, Ind.

Valves.

(See Mechanical Rubber Goods.)
Continental Rubber Works, Erie, Pa.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Jenkins Bros., New York-Chicago.
Milford Rubber Works Co., Milford, Ill.
New Jersey Car Spring & Rubber Co.
New York Belting & Packing Co., N. Y.
Manhattan Rubber Mfg. Co., Passaic, N. J.
New York Belting & Packing Co., Ltd., New York.

Wringer Rolls.

Canadian Rubber Co., of Montreal.
Cleveland Rubber Co., Cleveland, O.
Continental Rubber Works, Erie, Pa.
B. F. Goodrich Co., Akron, O.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Home Rubber Co., Trenton, N. J.
New York Belting & Packing Co., N. Y.
Republic Rubber Co., Youngstown, O.

DRUGGISTS' AND STATIONERS' SUNDRIES.**Atomizers.****Bandages.****Rubs.****Syringes.****Water Bottles.****Druggists' Sundries—General.**

Allen Mfg. Co., Toledo, Ohio.
American Hard Rubber Co., New York.
G. J. Bailey & Co., Boston.
Boston Woven Hose & Rubber Co.
Canadian Rubber Co., of Montreal.
Canton Rubber Co., Canton, O.
Cleveland Rubber Co., Cleveland, O.
Daval Rubber Co., Providence, R. I.
Faultless Rubber Co., Akron, O.
B. F. Goodrich Co., Akron, O.
Hodgman Rubber Co., New York.
Hyrgeis Nursing Bottle Co., Buffalo, N. Y.
Imperial Rubber Mfg. Co., Beach City, O.
Laserne Rubber Co., Trenton, N. J.

Druggists' Sundries—General—Continued.

Mitsel Rubber Co., Akron, O.
National India Rubber Co., Bristol, R. I.
North British Rubber Co., Ltd., Edinburgh.
Pirelli & Co., Milan, Italy.
Seamless Rubber Co., New Haven, Ct.
Tyer Rubber Co., Andover, Mass.

Balls, Dolls and Toys.

New York Rubber Co., New York.

Combs.

American Hard Rubber Co., New York.

Elastic Bands.

Canadian Rubber Co., of Montreal.
Cleveland Rubber Co., Cleveland, O.
Daval Rubber Co., Providence, R. I.
B. F. Goodrich Co., Akron, O.
Hodgman Rubber Co., New York-Boston.
Tyer Rubber Co., Andover, Mass.

Erasive Rubbers.

B. F. Goodrich Co., Akron, O.
Mattson Rubber Co., New York.

Finger Cots.

Baumann Rubber Co., New Haven, Ct.
Cleveland Rubber Co., Cleveland, O.
Faultless Rubber Mfg. Co., Akron, O.
B. F. Goodrich Co., Akron, O.
Imperial Rubber Mfg. Co., Beach City, O.
The Rubber Products Co., Barborton, O.

Gloves.

Canadian Rubber Co., of Montreal.
Daval Rubber Co., Providence, R. I.
Faultless Rubber Co., Akron, O.
B. F. Goodrich Co., Akron, O.
Imperial Rubber Mfg. Co., Beach City, O.
National India Rubber Co., Bristol, R. I.
Rubber Products Co., Barborton, O.

Hard Rubber Goods.

American Hard Rubber Co., New York.
Canadian Rubber Co., of Montreal.
H. O. Canfield Co., Bridgeport, Ct.
Daval Rubber Co., Providence, R. I.
Household Rubber Co., Youngstown, O.
Stokes Rubber Co., Joseph, Trenton, N. J.
Tyer Rubber Co., Andover, Mass.

Hospital Sheatings.

Cleveland Rubber Co., Cleveland, O.
Daval Rubber Co., Providence, R. I.
B. F. Goodrich Co., Akron, O.
Hodgman Rubber Co., New York.
National India Rubber Co., Bristol, R. I.
Plymouth Rubber Co., Stoughton, Mass.
Tyer Rubber Co., Andover, Mass.

Ice Bags and Ice Caps.

Baumann Rubber Co., New Haven, Ct.
Cleveland Rubber Co., Cleveland, O.
Faultless Rubber Co., Akron, O.
B. F. Goodrich Co., Akron, O.
Imperial Rubber Mfg. Co., Beach City, O.
National India Rubber Co., Bristol, R. I.
The Rubber Products Co., Barborton, O.
Tyer Rubber Co., Andover, Mass.

Life Preservers.

Hodgman Rubber Co., New York.
National India Rubber Co., Bristol, R. I.

Nipples.

Canadian Rubber Co., of Montreal.
Cleveland Rubber Co., Cleveland, O.
Daval Rubber Co., Providence, R. I.
Faultless Rubber Co., Akron, O.
B. F. Goodrich Co., Akron, O.
Hyrgeis Nursing Bottle Co., Buffalo, N. Y.
Imperial Rubber Mfg. Co., Beach City, O.
The Rubber Products Co., Barborton, O.
Tyer Rubber Co., Andover, Mass.

Shower Bath Sprinklers.
A. Schrader's Son, Inc., New York.

Sponges (Rubber).

Geo. Borgfeldt & Co., New York.
Faultless Rubber Co., Ashland, O.
N. Tire Rubber Sponge Co., Chicago.

Stationers' Sundries.

American Hard Rubber Co., New York.
Boston Woven Hose & Rubber Co.
Canadian Rubber Co., of Montreal.
Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
Cleveland Rubber Co., Cleveland, O.
Daval Rubber Co., Providence, R. I.
B. F. Goodrich Co., Akron, O.
Hodgman Rubber Co., New York-Boston.
Seamless Rubber Co., New Haven, Ct.
Tyer Rubber Co., Andover, Mass.

Stopples (Rubber).

Cleveland Rubber Co., Cleveland, O.
Daval Rubber Co., Providence, R. I.
Hodgman Rubber Co., New York.
Manhattan Rubber Mfg. Co., New York.
National India Rubber Co., Bristol, R. I.
New York Belting & Packing Co., N. Y.
A. Schrader's Son, Inc., New York.
Tyer Rubber Co., Andover, Mass.

Throat Bags.

Cleveland Rubber Co., Cleveland, O.
Daval Rubber Co., Providence, R. I.
B. F. Goodrich Co., Akron, O.
National India Rubber Co., Bristol, R. I.
Tyer Rubber Co., Andover, Mass.

Tobacco Pouches.

Canadian Rubber Co., of Montreal.
Faultless Rubber Co., Akron, O.
B. F. Goodrich Co., Akron, O.
The Rubber Products Co., Barborton, O.
Tyer Rubber Co., Andover, Mass.

MACKINTOSHED AND SURFACE GOODS.**Air Goods (Rubber).**

Canadian Rubber Co., of Montreal.
Cleveland Rubber Co., Cleveland, O.
Daval Rubber Co., Providence, R. I.
B. F. Goodrich Co., Akron, O.
Hodgman Rubber Co., New York.
New York Rubber Co., New York.
National India Rubber Co., Providence.
Tyer Rubber Co., Andover, Mass.

Air Mattresses.

Canadian Rubber Co., of Montreal.
Mechanical Fabric Co., Providence, R. I.
National India Rubber Co., Bristol, R. I.

Barbers' Bibs.

Cleveland Rubber Co., Cleveland, O.
Daval Rubber Co., Providence, R. I.
Tyer Rubber Co., Andover, Mass.

Bathing Caps.

Daval Rubber Co., Providence, R. I.
B. F. Goodrich Co., Akron, O.

Bellows Cloths.

Boston Rubber Co., Boston.
Cleveland Rubber Co., Cleveland, O.
Hodgman Rubber Co., New York.
La Crosse (Wis.) Rubber Mills Co.

Calendering.

La Crosse (Wis.) Rubber Mills Co.
Plymouth Rubber Co., Stoughton, Mass.

Carriage Ducks and Drills.

Cleveland Rubber Co., Cleveland, O.
Empire Rubber Mfg. Co., Trenton, N. J.
Gutta Percha & Rubber Mfg. Co., Toronto.
National India Rubber Co., Bristol, R. I.

Clothing.

Canadian Rubber Co., of Montreal.
Cleveland Rubber Co., Cleveland, O.
Granby Rubber Co., Granby, Quebec.
Gutta Percha & Rubber Mfg. Co., of Toronto.
Hodgman Rubber Co., New York.
La Crosse (Wis.) Rubber Mills Co.
National India Rubber Co., Bristol, R. I.
North British Rubber Co., Ltd., Edinburgh.
Pirelli & Co., Milan, Italy.

Cravenette.

Cravenette Co., Ltd.

Diving Apparatus.

A. Schrader's Son, Inc., New York.

Diving Dresses.

Hodgman Rubber Co., New York.

Dress Shields.

Mattson Rubber Co., New York.

Horse Covers.

Hodgman Rubber Co., New York.
National India Rubber Co., Bristol, R. I.

Leggings.

Cleveland Rubber Co., Cleveland, O.
Hodgman Rubber Co., New York.
National India Rubber Co., Bristol, R. I.

Mackintoshes.
(See Clothing.)**Proofing.**

Canadian Rubber Co., of Montreal.
La Crosse (Wis.) Rubber Mills Co.
Plymouth Rubber Co., Stoughton, Mass.

Rain Coats.

Cravenette Co., Ltd.

Rubber Coated Cloths.

Mechanical Fabric Co., Providence, R. I.

RUBBER FOOTWEAR.**Boots and Shoes.**

American Rubber Co., Boston.
Boston Rubber Shoe Co., Boston.
Canadian Rubber Co., of Montreal.
L. Candee & Co., New Haven, Ct.
B. F. Goodrich Co., Akron, O.
Granby Rubber Co., Granby, Quebec.
Gutta Percha & Rubber Mfg. Co., of Toronto.
Hood Rubber Co., Boston.
Lycoming Rubber Co., Williamsport, Pa.
Meyer Rubber Co., New York.
Milford Rubber Works Co., Milford, Ill.
National India Rubber Co., Boston.
North British Rubber Co., Ltd., Edinburgh.
United States Rubber Co., New York.
Wales-Goodyear Rubber Co., Boston.
Woonsocket Rubber Co., Providence.

Heels and Soles.

Boston Woven Hose & Rubber Co.
Canadian Rubber Co., of Montreal.
Continental Caoutchouc & Guttapercha Co., Hanover.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Plymouth Rubber Co., Stoughton, Mass.
Western Rubber Works, Goshen, Ind.

Tennis Shoes.

American Rubber Co., Boston.
Boston Rubber Shoe Co., Boston.
Granby Rubber Co., Granby, Quebec.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
La Crosse Rubber Mills Co., La Crosse, Wis.
National India Rubber Co., Providence.
United States Rubber Co., New York.

Wading Pants.

Canadian Rubber Co., of Montreal.
Hodgman Rubber Co., New York.

DENTAL AND STAMP RUBBER.**Dental Gum.**

American Hard Rubber Co., New York.
Cleveland Rubber Co., Cleveland, O.
Tyer Rubber Co., Andover, Mass.

Rubber Dam.

Cleveland Rubber Co., Cleveland, O.
Daval Rubber Co., Providence, R. I.
B. F. Goodrich Co., Akron, O.
Hodgman Rubber Co., New York.
Tyer Rubber Co., Andover, Mass.

Stamp Gum.

B. F. Goodrich Co., Akron, O.
Mattson Rubber Co., New York.
Mechanical Rubber Co., Chicago, Ill.
N. J. Car Spring & Rubber Co., Jersey City, N. J.
New York Belting & Packing Co., N. Y.

ELECTRICAL.**Electrical Supplies.**

American Hard Rubber Co., New York.
Lake Shore Rubber Co., Erie, Pa.
Joseph Stokes Rubber Co., Trenton, N. J.
Massachusetts Chemical Co., Boston.
Tyer Rubber Co., Andover, Mass.

Friction Tape.

Boston Belting Co., Boston.
Boston Woven Hose & Rubber Co.
Canadian Rubber Co., of Montreal.
Cleveland Rubber Co., Cleveland, O.
B. F. Goodrich Rubber Co., Akron, O.
Home Rubber Co., Trenton, N. J.
Massachusetts Chemical Co., Boston.
Mechanical Rubber Co., Chicago.
National India Rubber Co., Bristol, R. I.
Revere Rubber Co., Boston-New York.

RUBBER BUYERS' DIRECTORY—Continued.

Hard Rubber Goods.

American Hard Rubber Co., New York.
Canadian Rubber Co. of Montreal.
Joseph Stokes Rubber Co., Trenton, N. J.

Insulating Compounds.

Canadian Rubber Co. of Montreal.
Gutta-Percha & Rubber Mfg. Co., Toronto.
Massachusetts Chemical Co., Boston.

Insulated Wire and Cables.

National India Rubber Co., Providence.
Splicing Compounds.

Home Rubber Co., Trenton, N. J.
Massachusetts Chemical Co., Walpole, Mass.

SPORTING GOODS.

Foot Balls.

Canadian Rubber Co. of Montreal.
Cleveland Rubber Co., Cleveland, O.
Faultless Rubber Co., Akron, O.
B. F. Goodrich Rubber Co., Akron, O.
Hodgman Rubber Co., New York.
National India Rubber Co., Bristol, R. I.

Golf Balls.

Boston Belting Co., Boston.
Canadian Rubber Co. of Montreal.
Davidson Rubber Co., Boston.
B. F. Goodrich Rubber Co., Akron, O.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.

Sporting Goods.

Canadian Rubber Co. of Montreal.
Faultless Rubber Co., Akron, O.
B. F. Goodrich Rubber Co., Akron, O.
Hodgman Rubber Co., New York.
Tyler Rubber Co., Andover, Mass.

Striking Bags.

Canadian Rubber Co. of Montreal.
Cleveland Rubber Co., Cleveland, O.
Faultless Rubber Co., Akron, O.
B. F. Goodrich Rubber Co., Akron, O.
Rubber Products Co., Barberton, O.

Submarine Outfits.

Hodgman Rubber Co., New York.

MISCELLANEOUS.

Boiler Specialist.

H. W. Jones, New York.

Boxes (Wood).

Henry H. Shelp & Co., Philadelphia.

Brass Fittings.

A. Schrader's Son, Inc., New York.

Buckles.

The Weld Mfg. Co., Boston.

Cement (Rubber).

Boston Belting Co., Boston.
Canadian Rubber Co. of Montreal.
B. F. Goodrich Rubber Co., Akron, O.
Hadley Cement Co., Lynn, Mass.
Manhattan Rubber Mfg. Co., New York.
N. J. Car Spring & Rubber Co., Jersey City, N. J.
New York Belting & Packing Co., N. Y.

Chemical Analyses.

Durand Woodman, Ph.D., New York.
H. L. Terry, Manchester, England.

Chemical and Mechanical Engineer.

Charles E. Farrington, Boston.

Chemists.

Stephen P. Sharples, Boston, Mass.
Durand Woodman, Ph.D., New York.

Engraver.

P. C. Smith, Boston, Mass.

Recording Thermometers.

Bristol Co., New York.

Rubber Journals.

Gummi-Zeitung, Dresden, Germany.

Rubber Planting.

Ohio Rubber Culture Co., Canton, O.

Rubber Tree Seeds.

J. P. William & Bros., Hencratgoda, Ceylon.

Scrap Metals.

Robert L. Crooke, New York.

Valves for Air Goods.

A. Schrader's Son, Inc., New York.

MACHINERY AND SUPPLIES FOR RUBBER MILLS.

RUBBER MACHINERY.

Acid Tanks.

Birmingham Iron Foundry, Derby, Conn.

Band Cutting Machines.

A. Adamson, Akron, O.
Alton Machine Co., New York.
Birmingham Iron Foundry, Derby, Conn.

Belt Folding Machines.

Birmingham Iron Foundry, Derby, Conn.
Farrel Foundry & Mach. Co., Ansonia, Conn.

Belt Slitters.

Cloth Dryers.

Gearing.

Shafting.

Wrapping Machines.

Alton Machine Co., New York.
Birmingham Iron Foundry, Derby, Conn.
Farrel Foundry & Mach. Co., Ansonia, Conn.

Belt Stretchers.

Alton Machine Co., New York.
Birmingham Iron Foundry, Derby, Conn.
Farrel Foundry & Mach. Co., Ansonia, Conn.
Hogson & Pettis Mfg. Co., New Haven.

Boilers.

William R. Thropp, Trenton, N. J.
John E. Thropp & Sons Co., Trenton, N. J.

Braiders.

New England Butt Co., Providence, R. I.
Textile Machine Works, Reading, Pa.

Cabling Machinery.

Alton Machine Co., New York.

Calenders.

Alton Machine Co., New York.
Birmingham Iron Foundry, Derby, Conn.
David Bridge & Co., Castleton, Manchester, Eng.
Farrel Foundry & Mach. Co., Ansonia, Conn.
Textile-Finishing Machinery Co., Providence, R. I.
Textile Machine Works, Reading, Pa.

Castings.

A. Adamson, Akron, O.
Birmingham Iron Foundry, Derby, Conn.
Farrel Foundry & Mach. Co., Ansonia, Conn.

Chucks (Lathe).

Hogson & Pettis Mfg. Co., New Haven.

Churns.

American Tool & Machine Co., Boston.

Clutches.

Farrel Foundry & Mach. Co., Ansonia, Conn.

Crackers.

Alton Machine Co., New York.
Birmingham Iron Foundry, Derby, Conn.

Devulcanizers.

Alton Machine Co., New York.
Biggs Boiler Works Co., Akron, O.
Birmingham Iron Foundry, Derby, Conn.
Edred W. Clark, Hartford, Conn.
William R. Thropp, Trenton, N. J.

Dies.

John J. Adams, Worcester, Mass.
Barbour Bros., Trenton, N. J.
Brookton Die Co., Brockton, Mass.
Hogson & Pettis Mfg. Co., New Haven.
Independent Die Co., Brockton, Mass.
Joseph E. Knox & Co., Lynn, Mass.

Doubling Machines.

American Tool & Machine Co., Boston.

Drying Apparatus.

American Process Co., New York.

Drying Machines.

Alton Machine Co., New York.
David Bridge & Co., Castleton, Manchester, Eng.
Joseph P. Devine, Buffalo, N. Y.
Birmingham Iron Foundry, Derby, Conn.
Textile-Finishing Machinery Co., Providence, R. I.

Embossing Calenders.

Textile-Finishing Machinery Co., Providence, R. I.

Engines, Steam.

Alton Machine Co., New York.
William R. Thropp, Trenton, N. J.
John E. Thropp & Sons Co., Trenton, N. J.

Engraving Rolls.

Hogson & Pettis Mfg. Co., New Haven.

Grinders and Mixers.

Alton Machine Co., New York.
Birmingham Iron Foundry, Derby, Conn.
Farrel Foundry & Mach. Co., Ansonia, Conn.
William R. Thropp, Trenton, N. J.

Hangers.

Farrel Foundry & Mach. Co., Ansonia, Conn.

Hose Machines.

A. Adamson, Akron, O.
Alton Machine Co., New York.
Birmingham Iron Foundry, Derby, Conn.
New England Butt Co., Providence, R. I.

Hydraulic Accumulators.

Birmingham Iron Foundry, Derby, Conn.
Farrel Foundry & Mach. Co., Ansonia, Conn.

Insulating Machinery.

Textile Machine Works, Reading, Pa.

Iron Castings.

Alton Machine Co., New York.

Lasts (Rubber Shoe).

Middlesex Last Co., Boston.

Lathes—Hard Rubber.

A. Adamson, Akron, O.

Lathes—Jar Ring.

A. Adamson, Akron, O.
Alton Machine Co., New York.
Birmingham Iron Foundry, Derby, Conn.
William R. Thropp, Trenton, N. J.

Machinists' Tools.

Hogson & Pettis Mfg. Co., New Haven.

Moulds.

A. Adamson, Akron, O.
Alton Machine Co., New York.
W. E. Arnold, Malden, Mass.
Barbour Bros., Trenton, N. J.
Birmingham Iron Foundry, Derby, Conn.
H. O. Canfield Co., Bridgeport, Conn.
Hogson & Pettis Mfg. Co., New Haven.
Williams Foundry & Machine Co., Akron, Ohio.

Pillow Blocks.

Farrel Foundry & Mach. Co., Ansonia, Conn.

Presses (for Rubber Work).

A. Adamson, Akron, O.
Alton Machine Co., New York.
Bay State Machine Co., Erie, Pa.
Birmingham Iron Foundry, Derby, Conn.
Boomer & Boschert Press Co., Syracuse, N. Y.
Edred W. Clark, Hartford, Conn.
Farrel Foundry & Mach. Co., Ansonia, Conn.
William R. Thropp, Trenton, N. J.
Williams Foundry & Machine Co., Akron, Ohio.

Pumps.

Alton Machine Co., New York.
Birmingham Iron Foundry, Derby, Conn.
Boomer & Boschert Press Co., Syracuse, N. Y.
Farrel Foundry & Mach. Co., Ansonia, Conn.

Racks for Boot and Shoe Cars.

Hogson & Pettis Mfg. Co., New Haven.

Reducing Valves.

Mason Regulator Co., Boston.

Rollers (Hand).

Hogson & Pettis Mfg. Co., New Haven.

Rubber Covering Machines.

Alton Machine Co., New York.

Rubber Growers' Utensils.

Cement Cans and Tanks.
American Can Co., New York.
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American Can Co., New York.

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Turner, Vaughan & Taylor Co., Cuyahoga Falls, O.

Separators for Reclaimed Rubber.

American Process Co., New York.

Special Rubber Machinery.

Alton Machine Co., New York.
Wellman Co., Medford, Mass.

Spreaders.

Alton Machine Co., New York.
American Tool & Machine Co., Boston.
Birmingham Iron Foundry, Derby, Conn.
New England Butt Co., Providence, R. I.

Steam Traps and Specialties.

Jenkins Bros., New York.
Mason Regulator Co., Boston.
Osgood Sayen, Philadelphia, Pa.

Steel Stamps.

Hogson & Pettis Mfg. Co., New Haven.

Stitchers (Hand).

Hogson & Pettis Mfg. Co., New Haven.

Strip Covering Machines.

Alton Machine Co., New York.

Strip Cutters.

New England Butt Co., Providence, R. I.

Tire Molds.

Bay State Machine Co., Erie, Pa.
Williams Foundry & Machine Co., Akron, O.

Tubing Machines.

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Alton Machine Co., New York.
Bay State Machine Co., Erie, Pa.
Edred W. Clark, Hartford, Conn.
John Royle & Sons, Paterson, N. J.
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Alton Machine Co., New York.

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Birmingham Iron Foundry, Derby, Conn.

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Alton Machine Co., New York.
Biggs Boiler Works Co., Akron, O.
Birmingham Iron Foundry, Derby, Conn.
Farrel Foundry & Mach. Co., Ansonia, Conn.
John E. Thropp's Sons Co., Trenton, N. J.
William R. Thropp, Trenton, N. J.

Washers.

Alton Machine Co., New York.

Birmingham Iron Foundry, Derby, Conn.

David Bridge & Co., Castleton, Manchester, Eng.

Continental Rubber Works, Erie, Pa.

Farrel Foundry & Mach. Co., Ansonia, Conn.

William R. Thropp, Trenton, N. J.

Turner, Vaughan & Taylor Co., Cuyahoga Falls, O.

Wire Insulating Machines.

Alton Machine Co., New York.

New England Butt Co., Providence, R. I.

Wire Rope Machinery.

Alton Machine Co., New York.

SECOND-HAND MACHINERY.

Philip McGorry, Trenton, N. J.

M. Norton & Co., Charlestown, Mass.

FACTORY SUPPLIES.

Aluminum Flake.

Aluminum Flake Co., Akron, O.

Antimony, Sulphurets of.

Golden.

Actien-Ges. Georg Egestorff's Salzworke, Liden, Germany.

Atlas Chemical Co., Newtonville, Mass.

Golden and Crimison.

Joseph Cantor, New York.

Geo. F. Lufbery, Jr., Elizabeth, N. J.

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Wm. H. Scheel, New York.
Stamford (Conn.) Rubber Supply Co.
Type & King, London, England.

Balata.

George A. Alden & Co., Boston.
Raw Products Co., New York.

Benzol.

Samuel Cabot, Boston.

Black Hypo.

Joseph Cantor, New York.
William H. Scheel, New York.
Type & King, London, England.

Carbon Bisulphide.

George W. Speaight, New York.

Chemicals.

George W. Speaight, New York.
S. F. Wetherill Co., Philadelphia, Pa.

Colors.

Joseph Cantor, New York.
William H. Scheel, New York.
Type & King, London, England.
S. F. Wetherill Co., Philadelphia, Pa.

Crude Rubber.

George A. Alden & Co., Boston.
A. W. Brunn & Co., New York.
Walter L. Gough & Co., New York.
Hagermeyer & Brunn, New York.
Adolph Hirsch & Co., New York.
Livesey & Co., Ltd., New York.
Raw Products Co., New York.
Rubber Trading Co., New York-Boston.

Dermatine.

The Dermatine Co., London.

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J. H. Lane & Co., New York.

Gilsonite.

William H. Scheel, New York.

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United States Graphite Co., Philadelphia.

Graphite Grease.

Jos. Dixon Crucible Co., Jersey City.

Guayule Rubber.

Continental Rubber Co.
Ed. Maurer, New York.

Gutta-Percha.

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Hydro-Carbon Products.

Geo. A. Alden & Co., Boston.
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Raven Mining Co., Chicago.

Infusorial Earth.

Stamford (Conn.) Rubber Supply Co.

Kapak.

Raven Mining Co., Chicago.

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Samuel Cabot, Boston.

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Standard Asphalt & Rubber Co., Chicago.

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Aladdin Rubber Co., Akron, O.

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F. H. Appleton & Son, Boston.
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E. H. Clapp Rubber Co., Boston, Mass.
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Derby Rubber Co., Derby, Conn.
Eastern Rubber Co., New York.
John Lang, London.
Manufactured Rubber Co.
New Jersey Rubber Co., Lambertville, N. J.
Pequanoe Rubber Co., Butler, N. J.
Philadelphia Rubber Works, Philadelphia.
Robinson & Stiles, New York.
Stockton Rubber Co., Stockton, N. J.
Jos. Stokes Rubber Co., Trenton, N. J.
S. & L. Rubber Co., Chester, Pa.
Trenton (N. J.) Rubber Reclaiming Works.
U. S. Rubber Reclaiming Works, N. Y.
Westmoreland Rubber Mfg. Co., Grapeville, Pa.

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Bers & Co., Philadelphia.
M. Berzen & Co., New York.
C. Clifford, Baltimore, Md.
Wm. H. Cummings & Sons, New York.
Goldberg & Rathman, Boston, Mass.
Gunnar Hirsch, Stockholm.
Theodore Hoteller & Co., Buffalo, N. Y.
A. W. Leslie & Co., Ltd., London, Eng.
B. Loewenthal & Co., New York and Chicago.
J. Loewenthal & Sons, Chicago.
Philip McGrory, Trenton, N. J.
Meyer Bros., Philadelphia, Pa.
M. Norton & Co., Charlestown, Mass.
San Giacomo Sons, Newark, N. J.

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J. Schuurmann, London.
Schwab & Co., Philadelphia.
Trenton Gutta Percha & Rubber Separating Co., Trenton, N. J.
Trenton Scrap Rubber Supply Co., Trenton, N. J.
United States Waste Rubber Co., Brockton, Mass.
M. J. Wolpert, Odessa, Russia.

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Joseph Cantor, New York.
Carter Bell Mfg. Co., New York.
Geo. F. Lufbery, Jr., Elizabeth, N. J.
Massachusetts Chemical Co., Boston.
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Sulphur Chloride.

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Zinc Substituta.

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Zinc White.

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